



ZERO BEAT

Southeastern Massachusetts
Amateur Radio Association, Inc.
54 Donald Street
South Dartmouth, MA 02748



OUR 71st YEAR

Volume 39, Issue 9

SEMARA W1AEC

September 2003

EMERGENCY COMMUNICATIONS WORKSHOP

By Rob Macedo, KD1CY

SEMARA hosted an Emergency Communications Workshop sponsored by Eastern Massachusetts ARES. The workshop ran from 9 AM-4:30 PM. Approximately 30 people were in attendance with over half from SEMARA.

Mike Neilsen, W1MPN, who is the Eastern Massachusetts ARES Section Emergency Coordinator, began the workshop with an Introduction on ARES. Mike was given a rounding ovation after his introduction as Mike is still recovering from major surgery that he had completed 2-3 weeks prior to the workshop. **Rob Macedo, KD1CY**, SEMARA Club member and holder of 3 ARES leadership positions including SEMARA Emergency Coordinator, gave a presentation on Net Operations.

Following a break, **Steve Schwarm, W3EVE**, ARES District Emergency Coordinator for Norfolk County and ARES training DEC, gave a presentation on the National Traffic System and how to create NTS messages. After the presentation, all the hams wrote their own NTS traffic messages and several hams practiced relaying the message to another ham who was at the workshop using HT's.

Frank O'Laughlin, WQ1O, Cape Cod ARES District Emergency Coordinator, gave a presentation on *Go Kits*, (the gear you need to take with you when an emergency arises), the varying types (24-hours, 72-hours, and one for longer periods) that can be put together and how to be prepared for field deployments.

Scott Szala, W1EV put together a fantastic BBQ Chicken and corn-on-the-cob lunch that was one of the best luncheons ever given at a workshop. Scott received a loud round of applause for preparing the lunch.

Mark Duff, KB1EKN, Metro Boston Area ARES District Emergency Coordinator, presented the Incident Command System (ICS). He began with an informative video on how ICS is used in the fire department and then presented slides on Incident Command.

Go Kits were then demonstrated by **Ed Burg, N1VSJ**, ARES District Emergency Coordinator for Field Operations and **Frank O'Laughlin, WQ1O**. Frank also presented various different types of antennas that can be setup at field sites quickly and easily.

Ten club members registered with ARES from this workshop which gives a tremendous boost to the ARES program in the local area. Special thanks to all club members and to everyone else who attended the workshop. It is hoped to bring the workshop back to SEMARA late next year.



Rob Macedo, KD1CY

Photo by Mike Neilson, W1MPN

URL for EC Workshop pictures:

http://ema.arrrl.org/mod/gallery/view_album.php?set_albumName=album22

ZERO BEAT

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 54 Donald Street,
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EDITOR

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ADVERTISING

Commercial ads the size of a business card will be accepted. Rates are \$5.00 for one insertion, \$20.00 for six insertions, and \$35.00 for twelve insertions.

Non-commercial ads up to forty words in length will be accepted. Rate is \$3.00 for one or \$12.00 for six insertions. Club members have one free non-commercial ad per month.

THE DEADLINE FOR
 SUBMITTING ARTICLES FOR
 PUBLICATION IS THE 15TH
 OF THE PRECEDING MONTH.

HAMMING AROUND

E4C07* What is a major cause of atmospheric noise?

- A. Sunspots
- B. Thunderstorms
- C. Airplanes
- D. Meteor showers

ANSWER - See page 7

* From the Amateur Extra Class (Element 4B) Question Pool

IT SEEMS TO ME ...

Lots of people are talking about things that will impact Amateur Radio as we know it. Did you know that there are some hams who think we need to change our name from *Amateur* to *Volunteer*? That's because some people think that an *amateur* is not as capable as a *professional*. But I disagree. Amateurs can be, and have proven to be, just as capable as paid professionals in emergency situations—the most recent example being the Blackout of 2003.

Some of the changes to the Amateur Radio Service that are in the works as a result of the WRC-03 are wide-reaching. Come 2009, we will have 7.000-7.200 MHz to ourselves, sharing 7.200-7.300 MHz.

Can the United States be far behind? As of now, the Morse code requirement is a thing of the past in Switzerland, Germany, Belgium, the United Kingdom, Norway and the Netherlands. Just what would it mean if all licensed hams were given credit for Element 1, the 5-wpm code test? I guess that would turn all Technician class licenses into Technician-Plus with CW privileges on HF! That would be pretty ironic, giving codeless hams access to the CW-only Novice HF-bands! Think they might try CW? (See page 6: forming a casual CW group.)

The National Committee of Volunteer Examiner Coordinators (NCVEC) will be submitting a rule making petition to the FCC to eliminate the Element 1 requirement. They are also looking into making a proposal for a new *entry-level* license. **Scotty Neustadter, W4WW**, recommends a 50-W maximum power output limit with Novice HF subbands plus 12- and 17-meter privileges and a 20-question written. **Fred Maia, W5YI**, suggests that current Technicians be given General Class licenses and the use of all bands. *Entry-level licenses* would be granted call signs from the *NA-NZ#xxx* call sign block. Both would like to see CW-only subbands eliminated immediately together with the elimination of the 5-wpm code requirement.

What do *you* think of all this?

2003 SEMARA OFFICERS

President
 Raymond Arruda, KB1EVX

Vice President
 Carl Bredberg, K1KID

Secretary
 Henry Blanchett, W1GYL

Treasurer
 Scott Szala, W1EV

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William Vincent, W1POW - Chairman
 Edward Blouin, KA1AW Norman Riley, W1ATI
 Andrew Reuter, WA1FNM William Miller, K1IBR

Board of Directors:

Martin Jordan, KA1YFV
 Andrew Reuter, WA1FNM
 William Vincent, W1POW

MEETING MINUTES

The Business Meeting was called to order August 7, 2003 at 7:00 pm by **Ray Arruda, KB1EVX**. Thirty five members were present.

The Secretary's and Board of Directors reports (**Henry R. Blanchett Jr., W1GYL**) were accepted as read.

The Treasurer's report (**Scott Szala, W1EV**) was accepted as read.

COMMITTEE REPORTS

Buildings and Grounds (Andy Reuter, WA1FNM)—Fire Extinguishers have been refilled, sealed, and tagged. Please remember to turn off all lights before leaving the club.

Technical (Carl Bredberg, K1KID)—Big tower rotator: Please leave the beam pointed to 180° (South). The rotator can go 40° past north; however, the coax and rotator wire tighten up and it hits the stop.

Activities (Scott Szala, W1EV)—Sign up for ARES Workshop. Lobster dinner tickets sold out. Chicken BBQ to be held in late September.

Scholarship (Larry Houbre Jr., AA1FS)—Scholarships will be sent to local schools.

Internet (Larry Houbre Jr., AA1FS)—Internet is running well. Keeping up with the database.

Fleamarket (Dick Simpkin, WA1CRA)—Need a talk-in person, two at the check-in table. And a notice to club table sellers: sellers can not buy at the fleamarket while selling.

ARES Coordinator (Rob Macedo, KD1CY)—The Emergency Communications and ARES Workshop will be held Saturday, August 9.

Communications (Carl Bredberg, K1KID)—No report.

Ratifications*—Three new members were voted into the club. See "CLUB NOTES" (page 4) for the names.

President's Comments (Ray Arruda, KB1EVX)—**Sam Wagstaff, N1PNG**, is still in the Oake's Nursing Home. Also, thanks to everyone who donated to the fleamarket.

Old Business—Re-voted and passed a motion made last month: Motion*: "Purchase a new Radio Shack 10-meter radio from **Carl Bredberg, K1KID**, for use as an additional Fleamarket door prize."

New Business—

1. Motion*: "Purchase a large cooking pot for our cookouts."
2. Motion*: "Purchase a two-line phone, a wireless router, and other required items (not to exceed \$300.00)."
3. Motion*: "Make SEMARA a member of "FISTS" an international organization to preserve CW. We will be assigned a number to be worth more towards contacts with other clubs. No cost to the club."

FOR THE GOOD OF THE CLUB—Nothing.

The meeting adjourned at 8:15 pm.

Submitted by Henry R. Blanchett Jr., W1GYL, Secretary

* All votes and motions passed by the members present.



DIRECTIONS TO CLUB

SEMARA CLUBHOUSE
 54 DONALD STREET
 SOUTH DARTMOUTH
 (508) 992-0613
 147.00 / 147.60



CLUB NOTES

The calendar says Summer ends on September 23rd; but for me, Labor Day is it. The second Sunday in September is when the SEMARA Fleamarket is held. So, while it is still officially summer, plan to come out and enjoy this event—and pick up some great buys.



Three applicants were voted life members of the club during the August 7, 2003 business meeting:

Terry Ladd, VE2WTQ

Delilah Maldonado, KB1IQC

Keith Moor (no call letters)

Welcome to the club!



Ed Baker, K1BKR, donated a trunk load of radio equipment to the club. In addition to a Yaesu FRT-7 general coverage receiver, there are SWR/power meters and assorted test equipment. Thanks, Ed!

Thanks Ed!

Ron Correia, N1DXD, donated a System Donner frequency counter to the club for sale at the upcoming Fleamarket. The unit displays frequency up to 512 MHz. Thanks, Ron!

Thanks Ron!

STEPHEN R. HALL, JR., WA1MWL, SK

Former club member Stephen R. Hall, Jr., WA1MWL, of East Sandwich, died Saturday, July 26, 2003 at Falmouth Hospital. He was 74 years old. He had joined the club in 1977. His son, Stephen A. Hall, WB1CWI, a former club member, joined in 1975.



Rest in Peace, Stephen.



Twin Lobster Boil

The “Twin Lobster Boil” took place at the Clubhouse on Saturday, August 16. A sold-out crowd of fifty began their feast at 12 noon. Everyone had a great time. The feedback I got was “I can’t wait for the next one!”



Chowder servers — Jessica Kirkwood, KB1JUW, and Arlene Arruda, KB1KGG

Photo by Norm Riley, WIATI



Dick Houghton, WA1CXG, and Joe Midurski, W1EKW

Photo by Norm Riley, WIATI

Many thanks to **Scott Szala, W1EV**, and the rest of the crew for such a fine feast.

Wireless Networking

By **Bob Kelley, K1KVV**

About two dozen people learned the inside scoop on *wireless networking* at the Tech Talk given on August 21 by **Tim Smith, N1TI**. He told us that 802.11 wireless networking is definitely here. SEMARA recently installed a wireless router to allow similarly equipped laptop computers to access our internet, especially during times of emergency.

What is 802.11b? It uses 11 Mbps networking technology: direct sequence spread spectrum; eleven 25 MHz channels are usable in the US, however only three of them can be used together in close proximity without interfering; can operate in either Ad-Hoc (peer-to-peer) mode or Infrastructure (connecting via an access point) mode.

Equipment costs are nominal with wireless access points ranging from \$70 to \$130 and many have built-in broadband routers. PCI and PCMCIA cards are available for \$40 to \$80. And rebates from \$10 to \$30 are often offered. With an installed base of around 15 million users, it represents a \$1,000,000,000 per year industry.

The problem is security. After all, wireless networking is just radio communications. Hence, anyone with a radio can eavesdrop and inject traffic or worse. The main culprit is RF leakage. That permits security attacks from afar. The industry's solution is Wired Equivalent Privacy (WEP). This approach shares a single cryptographic key among all attached devices. It encrypts all packets sent over the air using the shared key. A checksum is used to prevent the injection of spoofed packets.

But it is not as secure as the manufacturers would like you to believe. Hacking wireless access points take only readily available "tools of the trade." Basically, you need a wireless card with hacker software running on your laptop and an antenna to be in business. These are available on *eBay* for as little as \$50. Hacker software is yours for the downloading. Now you are ready to go mobile, to go *war-driving*.

All *war-driving* takes is putting the gear in your car, mounting the antenna on the roof, and running sniffer software such as *NetStumbler*. Just drive around to discover who is on the air and what kind of equipment is running. Add a GPS and you can make a survey map. If you want to know more, use software like *AirSnort* to crack the WEP encryption. A survey of Los Angeles that Tim found on the web shows only 468 out of 1733 access points were using WEP; 1265 were unencrypted!

Who is vulnerable? Just about every access point can be hacked. Tim's computer showed us that SEMARA's wireless access router was *Linksys*. Need I say more? And the threat is even worse. When the hacker gets your IP address, they can then attack *wired* computers as well as wireless ones. Especially vulnerable access points are those that spread their signals far and wide. Translation—microwave can travel further when the source is higher and closer to the outside wall. This is worse when the access point is next to a street.

What can you do about it? For starters, identify your signal range. Hackers with gain antennas can pick up your signal further away than your laptop with a wireless card! Periodically scan your place for rogue access points and check you router logs for strange MAC addresses.

Some simple RF absorbing material or shielding might help reduce the RF leakage enough. You are a ham, so experiment—that is what the hackers do, and they do not even know the theory!



20+ dB gain antenna.



10+ dB gain antenna.



Tim Smith, N1TI

Photos by Ken Howland

Casual CW Anyone?



Anyone interested in forming a casual CW group within SEMARA please contact **Carl Bredberg, K1KID**, at K1KID@arrl.net. You do not need to be interested in low power but QRP can also be a focus of this group if there is enough interest. It seems low power and CW go hand and hand. You only need a few watts to work the world.

Even if you haven't done CW in years, or ever for that matter, we can help get you started and/or improve your proficiency and help you to enjoy the most fun mode in ham radio.

Carl Bredberg, K1KID

NEXT SEMARA VE SESSION

October 4, 2003

10:30 am

SEMARA Clubhouse

SEPTEMBER VE SESSIONS

08 Brookline, MA

Mike Ardai

781-321-7939

11 Providence, RI

Judy Nelson

401-231-9156

13 Falmouth, MA

Joanne Reid

508-548-1121

20 Marlborough, MA

Bill Wade

617-699-3670

27 Middletown, RI

Jack P. Garforth

401-683-2250

N1DSN Turns 90!



Steve Spulock,
N1DSN, of South
Dartmouth, turned 90
years young on July
20th.

*Happy Birthday
Steve!*



Answer the Call

Volunteers are needed to form a *Building Committee* for a new addition to the Club.

The committee needs to have a Chairman plus several members to fill it out. Some experience in carpentry, plumbing, and the electrical arts is preferable.

Contact me as soon as possible at kb1evx@earthlink.net so we can start work on the addition.

Ray Arruda, KB1EVX, President


A POINT TO PONDER

*"We are constantly faced
with a series of great oppor-
tunities brilliantly disguised
as insoluble problems."*

—John W. Gardner

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SEMARA EVENT CALENDAR

<p>SEPTEMBER 2003</p> <p>1—Labor Day</p> <p>4—Business Meeting, 7:00 pm.</p> <p>11—Ragchewing @ clubhouse, 6:30 pm.</p> <p>14—SEMARA HAMFEST! 7am—noon</p> <p>18—Tech-Talk, 7 pm, Echo Link by Tony Duarte, N1XRS</p> <p>25—ZERO BEAT folding party, 6:30 pm.</p>	<p>OCTOBER 2003</p> <p>2—Business Meeting, 7:00 pm.</p> <p>4—VE Session, 10:30 am.</p> <p>9—Ragchewing, 6:30 pm.</p> <p>16—Tech-Talk, 7 pm, APRS by Dave Neal, W2DAN,</p> <p>23—Board of Directors Meeting, 6:30 pm.</p> <p>30—ZERO BEAT folding party, 6:30 p.m.</p>
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Coffee Hour at the clubhouse every Sunday at 7 - 11 am. Drop by and ragchew!

SEMARA NET DIRECTORY

Sunday - 8 am 28.700

Daily - 7 pm 147.000+

Monday to Friday
7:30 am 3.872 MHz

— **SEMCARES NET** —
1st Sunday each month at 7:30 pm
145.490- (Fairhaven Repeater)

FAIRHAVEN WEATHER NET
8 pm Monday - Friday 145.490-

SEMARA SWAP NET Every Monday at 7:30 pm on 147.000+

2003 FLEAMARKETS

September 14 - SEMARA!!!

September 20 - Forestdale, RI

September 21 - MIT

Oct 3,4 - HOSSTRADERS

October 19 - MIT

LOCAL REPEATER DIRECTORY

Frequency	CTCSS	Call	Location	Frequency	CTCSS	Call	Location
144				440			
145.150 -	123.0	WA1DGW	Fall River	441.400 +	192.8	WG1U	Assonet
145.490 -		KD1CY	Fairhaven	442.200 +	88.5	N1NRL	Fall River
146.445 +1Mhz	91.5	KB1BWN	Dartmouth	442.600 +	100.0	K1LIQ	Tiverton, RI
146.655 -	88.5	WA1GPO	Falmouth	443.450 +	88.5	K1MYL	Westport
146.685 -		W1LM	Plymouth	443.500+	141.3	K1PBO	Barnstable
146.955 -	88.5	K1PBO	Dennis	443.600 +		NS1N	Norwell
147.000 +	67.0	W1AEC	Dartmouth	443.800 +	88.5	W1RJC	Dartmouth
147.345 +	88.5	KB1QL	Vineyard	444.200 +	118.8	N1YHS	Bourne
147.135 +	67.0	ND1N	Taunton	444.250 +	141.3	WA1GPO	Falmouth
147.180 +	67.0	W1MV	Bridgewater	444.350 +	88.5	W1ACT	Fall River
146.730 -		W1SGL	Sandwich	444.550 +	88.5	W1MV	Bridgewater
				447.075 -	88.5	N1DZD	Kingston

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SEMARA

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