



ZERO BEAT

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



OUR 72nd YEAR

Volume 40, Issue 3

SEMARA W1AEC

March 2004

Optical Communications Tech Talk



Tim Smith, N1TI, presented his talk on “Optical Communications” to a full house of 22 SEMARA members on Thursday, February 19. He covered both fiber-optic cable networks and through the air optical links.

The power levels normally used are 0 dBm or 1 mW. Typically these use an 859 nm wavelength carrier in the near-infrared. The first generation optical sources were LEDs that used on-off modulation. Today, edge-emitting laser diodes are used. Some impor-

tant differences between LED and laser radiation are phase-coherence and polarized output. These properties allow interfering radiation to be rejected and provide higher signal to noise signaling.

Optical beams typically have 0.9 milliradians divergence. This means that the spot size will be about 90 cm at 1 km. Optical losses in air can be as much as 300 dB/km. Link diversity and path diversity are two techniques used to deal with scintillation effects.

You might use optical communications anytime you cannot get cable for the job. While the technical problems are a challenge, optical communications offers some remarkable advantages over direct cable connections. Free space systems can cover distances up to 2 km or so with 99% reliability at 100 Mb rates.

There are some economic advantages to bypassing part of normal cable connections. For example, an optical link from the ground to the top of a tower eliminates the need to pay the tariffs for the all the cable connections in between, which is usually the most costly portion. Another gain comes the ability to connect directly through buildings, using fiber-optics, rather than having to pay for expensive roof-mounted repeaters to go over buildings.

Further, communications can be made quite secure by shutting down any path that experiences too much path loss, such as might indicate that part of the beam is being “sampled” by someone.

Tim had a hard time wrapping up the “samples” he had passed around for us to examine. As usual, time was up before we knew it.

Thanks, Tim, for an excellent presentation.

ZERO BEAT

Published monthly by the
**Southeastern Massachusetts
 Amateur Radio Association, Inc.**
 54 Donald Street,
 South Dartmouth, MA 02748

EDITOR

Robert B. Kelley, K1KVV
 Phone: (508) 758-6311
 E-Mail: EDITOR@SEMARA.ORG

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

E1D07* What additional operator privileges are granted to an Extra class operator registered with RACES?

- A. None
- B. CW operations on 5167.5 kHz
- C. Unattended HF packet-radio station operations
- D. 237-MHz civil defense band operations

* From the Amateur Extra Class (Element 4B) Question Pool ANSWER - See page 7

IT SEEMS TO ME ...

While reading the March issue of *CQ*, I was impressed by how old I must be getting. I find that I am agreeing with most of the opinion articles that are published.

For example, **Wayne Yoshida, KH6WZ** in his *beginner's corner* column brings up two of my pet peeves: non-standard phonetics and backwards IDing.

An example of non-standard phonetics is one I thought about using when I had a 6 call. I thought that "Wild Apples Six Kings Queens and Aces" would be pretty cool for WA6KQA. Fortunately, I never did put that out into the ether. Of course, no one would have had any trouble understanding "Whiskey Alfa Six Kilo Quebec Alfa" but that would have been too easy, wouldn't it!

Backwards IDing was something that an older relative of mine always did. I chalked it up to advanced years. When turning the QSO over to the next person, I would hear my relative say, "this is WA6KQA passing it to K1KVV." My problem was, I didn't know how to tell this relative that backwards IDing was poor *style*. As you know, the last thing you are expected to say according to the FCC, is *your* callsign, not the receiving station's.

So there you have it. I've been holding that in for a long time. Now I feel almost light-headed with that out of my system.

I was chatting with **Arlene, KB1KGG** during the recent ARES drill and she mentioned that "she liked to talk." To be honest this didn't surprise me the least bit, after all I am married too. But then the idea surfaced that perhaps the YLs might like to have their own 2-meter net. I noticed that there are several YLs on the members list. Yet, I don't see too many at the SEMARA business meetings. Do they get stuck doing the dishes or what?

Well, here's a chance to get out of the house without leaving it. Consider this an invitation to get on the repeater and enjoy meeting other YLs. Check with **Arlene, KB1KGG**. Just send her an email to set-up a time to talk: BlBomb2@earthlink.net. You'll be glad you did.

And while I am on this topic, there must be some other, underrepresented, groups out there such as college students, high school students, or just plain kids. What say? Do you want to have your own net?

2004 SEMARA OFFICERS

President

Donald Manley, N1PMB

Vice President

Charles Moszczenski, KB1FRL

Secretary

Ronald Silvia, WB1HGA

Treasurer

Scott Szala, W1EV

Trustees: (year term is up)

Edward Blouin, KA1AW (2004) - Chairman
 Norman Riley, W1ATI (2005) Andrew Reuter, WA1FNM (2006)
 William Miller, Jr., K1IBR (2007) Larry Houbre, Jr., AA1FS (2008)

Board of Directors:

Ray Arruda, KB1EVX
 David Dean, K1JGV
 Marty Jordon, KA1YFV

MEETING MINUTES

The Business Meeting was called to order February 5, 2004 at 7:00 p.m. by **Donald Manley, N1PMB**. Thirty three members were present.

The Secretary's report (**Ron Silvia, WB1HGA**) was accepted as read without correction.

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

STANDING COMMITTEE REPORTS

Buildings and Grounds (**Andy Reuter, WA1FNM**)—appeals to all members please shut off the lights when leaving.

Technical (**Tony Duarte, K1XRS**)—reports a change from Morse id to voice id and will post summary of commands for system.

Activities (**Scott Szala, W1EV**)—Nothing to report at this time.

SPECIAL COMMITTEE REPORTS

Scholarship (**Larry Houbre, Jr., AA1FS**)—Nothing to report.

Internet (**Larry Houbre, Jr., AA1FS**)—Nothing to report.

Fleamarket —No report.

Building (**Scott, W1EV**)—right now the committee is researching plans and looking for volunteers for building with or without carpentry skills.

ARES (**Rob Macedo, KD1CY**)—Rob reminds us the upcoming exercise scenario will be power outage and also the workshop to be held in Hingham on April 3 at 9 a.m.

Communications (**Charles Moszczenski, KB1FRL**)—reports that Universal Electronics looking for help on their communications products.

Ratifications—Three new members were voted life members (see page 4 for details).

President's Comments (**Donald Manley, N1PMB**)—announced that **Albert Crook, N1ALU** is a silent key (see page 5).

Old Business—None.

New Business—

*Motion passed:** to purchase equipment from the estate of **Dick Simpkin, WA1CRA** and have remainder as donation to club.

*Motion passed:** That any presentation by the Building Committee be equally between steel and wooden structures for fair and informed decisions by membership.

*Motion passed:** to accept minutes printed in Zero Beat at official meeting.

*Motion passed:** To print out a check sheet for members using the club station

FOR THE GOOD OF THE CLUB—**Rob, KD1CY** expressed recognition by all members to **Tony, N1XRS** for his efforts in maintaining the club repeater.

Rick, W1RJC suggests that club should have swap and sell listings in club's website.

The meeting adjourned at 7:58 p.m.

Submitted by Ron Silvia, WB1HGA, Secretary

* All motions accepted and passed by the members present.



DIRECTIONS TO CLUB

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



CLUB NOTES

March is a month full of expectation and change. While we can count on it being windy and a little warm, a little cold, there can be no doubt that winter is trying to leave us. So this might be a good time to start planning to do the necessary maintenance on antennas and coax and everything else that you want to be sure works when you get bitten by the "operating bug." Take the time now so you can enjoy the fun when the weather turns.



Three applicants were voted life members of the club during the February 5, 2004 business meeting:

- N1JBC** Jed Barton,
- KD1QQ** Richard Loiselle,
- KB1KQG** Shawn De Cesari

Carol Correia, widow of Ron Correia, N1DXD, donated the following equipment to the club in memory of her late husband:

Collins 75S-3C receiver, **Kenwood** TS530S transceiver, **Yaesu** FT-690R II 6 meter transceiver, **Icom** IC-211 2 meter transceiver, **Kenwood** TH205AT 2 meter walkie, **Icom** IC-T7H dual-band walkie, **Radio Shack** HTX-100 10 meter transceiver, **Radio Shack** HTX252 2 meter transceiver, **MFJ**-4035MV 35 ampere power supply, **Vibroplex** standard model keyer, **GAP** antenna, and a box of assorted radio gear and coax.

Thank you, Carol, for this most generous donation.



T
h
a
n
k
Y
O
U

SEMARA EVENT CALENDAR

MARCH 2004



- 4—**Business Meeting**, 7:00 p.m.
- 6—**VE Session**, 10:30 a.m.
- 11—**Ragchewing**, 6:30 p.m.
- 18—**Tech Talk**, 7:00 p.m. **Your Theatre - Past, Present and Future** by *Larry Houbre, Jr., AA1FS*
- 25—**ZERO BEAT folding party**, 4:30 p.m.

Ragchew at the clubhouse every Sunday at 7 - 11 a.m.
Drop by and enjoy a cup of coffee and donuts!

**NEXT SEMARA
VE SESSION
MARCH 6, 2004
10:30 A.M. @ CLUBHOUSE
LARRY HOUBRE, JR., AA1FS
508-991-6055**

March VE SESSIONS

- 11 Providence, RI, 7:00 p.m.**
Judy Nelson, KC1RI
401-231-9156
- 13 Falmouth, MA, 9:00 a.m.**
Joanne Reid, N1LNE
508-548-1121
- 15 Fall River, MA, 7:00 p.m.**
Skip Denault, KB1CNB
774-644-3469
- 19 Norwood, MA, 7:30 p.m.**
Richard Cantin, AA1TI
508-339-1089
- 27 Slatersville, RI, 9:00 a.m.**
Robert E Jones, WB1P
401-333-4787

SEMARA Notes

ALBERT CROOK, N1ALN, SK

Albert Crook, N1ALN, 83, died unexpectedly at his Freetown home on Wednesday, January 28, 2004. Al was a longtime member of the club and last year donated several radios to the club in loving memory of his wife **Betty, N1EHR**.



May he rest in peace.

NEW NET!

The New England Net - Every Sunday @ 7:00 p.m. Eastern. Beginning Sunday, February 8, a new weekly net will begin called the New England Net. This net is a general information and ragchew net designed especially for the New England Network. During the net, you will be able to ask questions regarding the network, mention ham gear for swap or sell and answer three trivia questions for fun.

The net will be running every Sunday evening, if anyone would like to check in. Locally, it will be transmitting on the following frequencies as well as on EchoLink conference server "NEW-ENG" for the computer:

443.800 PL 88.5 W1RJC Dartmouth MA Repeater

146.595 PL 141.3 N1XRS Dartmouth, MA Link System

145.520 PL 123.0 KB1HJG Plymouth, MA Link System

447.025 PL 77.0 N1JBC Johnston, RI Repeater

and others.

See <<http://www.new-eng.com>> for more info.

See you on the New England Net!

Antone D Duarte Jr N1XRS

THREE ARRL AWARDS ELIMINATED

MEMBERS' ECHOLINK NODES

CALL	FREQ	PL	NODE
WB1HGA	147.440 simplex	67.0	2061
KB1HGJ	145.520 simplex	123.0	4722
N1XRS	146.595 simplex	141.3	8998
W1DBX-L			63494
KD1CY	145.490-		142790
W1RJC	443.800+	88.5	4259

Any additions? Send the information to:
editor@semara.org

"Three ARRL awards discontinued: Effective immediately, the ARRL Awards Branch has discontinued the Rag Chewer's Club, the Old Timer's Club and the Friendship Award. ARRL Membership Services Manager **Wayne Mills, N7NG**, says that the number of amateurs applying for awards in general has declined significantly over the years, and interest in these three awards had slowed to a trickle. DXCC and WAS remain among the most popular ARRL Awards, he said, but the eliminated awards "had outlived their interest level." For more information on ARRL awards, visit The ARRL Awards Program page <<http://www.arrl.org/awards/>>."

Look for new EchoLink WAS and WAC in anticipation of BPL!

—————><————— **Ron, WB1HGA**

VE SESSION RESULTS

Lance C. Shavers passed his Technician Exam at the February 7 VE Session. He also had passed the Morse Code Exam earlier, so he is now a Tech Plus.

—————><————— **Ray, KB1EVX**

NEW 10-METER RAGCHEW NET

Come join me and a couple of other guys who have been getting on 10-meters on Saturday evenings at 8 p.m. on 28.700. All are welcome. 73 and catch you on the air. (Listed on the back page of Zero Beat.)

Don Manley, N1PMB

ARES Emergency Drill-**Feb 2004**

The scenario and plans were provided by **Rob Macedo, KD1CY**. The drill took place on Saturday, February 21, 2004 in the SEMARA clubhouse.

The scenario for this drill was a major incident causing a massive power failure lasting for a 12-24 hour period with severe cold conditions that result in shelter openings.

For this drill, SEMARA was the site of the Southeast Massachusetts ARES DEC (Amateur Radio Emergency Service District Emergency Coordinator, **Rob Macedo, KD1CY**). Hence SEMARA served as the hub for local ARES operations in South Coastal Massachusetts as well as the district ARES station.

The purpose of this drill is to test the following aspects of Emergency Communications:

- Local ARES team coordination and deployment as well as local NTS and tactical message handling.
- Intra-district tactical and formal message handling.
- Utilization of HF, VHF, UHF, Packet, IRLP and EchoLink modes of communication.
- Utilization of EOC or Simulated EOCs at various points across the district.



SEMARA DRILL PARTICIPANTS

ARES Supervisor: **Tony Duarte, N1XRS**

2-m Operating Position: **Bob Kelley, K1KVV; Ray Arruda, KB1EVX; Arlene Arruda, KB1KGG**

HF Radio Room: **Rob Macedo, KD1CY; Carl Bredberg, K1KID; Rick Cabral, W1RJC**

SEMARA: **Bill Miller, K1IBR; Bill Vincent, W1POW; Bill Field, WA1FYF; Dick Halliwell, K1AHA; Chuck Moszczenski, KB1FRL; Scott Szala, W1EV**

2-m Mobile, Portable and Base Station Check-ins: **Pete Ryder, KB1GPL; Art Irwin, W1AEI; Dave Dean, K1JGV; Dick Halliwell, K1AHA; Don Mazzucchi, KA1BXB; Bob Zeida, N1BLF; Roy Rehbein, AD1I; Charlie Pelletier, KD1DA (NB EMA)**

2-m ARES Traffic Stations: **WC1MA/N1MPN-Mike (ARES HQ); KB1ESG (CC EMA); K1CJS-Chris (FR EMA)**

That shows SEMARA had thirteen members at the clubhouse, eight 2-m check-ins, and three EMAs. Message traffic included both formal (NTS-style) and tactical communications. In addition, there was HF communications to call-up the other EMAs for 2-m traffic. All in all, about 30 pieces of traffic was handled.

Thanks to both **Rob, KD1CY** and **Tony, N1XRS** for providing SEMARA with a valuable training experience. I can hardly wait for the next one—**Bob, K1KVV**



TWO-METER OPERATING POSITION




HF OPERATING POSITION

Rob, KD1CY-DEC;
Carl, K1KID-HF Net Control (not pictured).

Please support these fine sponsors of our newsletter

WORLDWIDE DISTRIBUTION



HAM RADIO OUTLET

Chuck Wyrick
Manager
N1UC

224 N. Broadway
Salem, NH 03079
(603) 898-3750, 1-800-444-0047

ANAHEIM, CA • ATLANTA, GA • DENVER, CO • OAKLAND, CA
PHOENIX, AZ • PORTLAND, OR • SALEM, NH • SAN DIEGO, CA
SUNNYVALE, CA • VAN NUYS, CA • WOODBRIDGE, VA

STAN & PAUL'S, INC.

215 State Road
No. Dartmouth, MA 02747

We meet or beat all appliance prices!

Sales	Resale Store	Service
(508) 994-6060	(508) 999-3623	(508) 994-4311
(508) 295-3700	Fax: (508) 999-9373	(508) 994-9082

~ Call Today or Visit Us On-Line ~


Web site: www.stanandpauls.com -or- E-mail: info@stanandpauls.com

NOQUOCHOKE ORCHARDS

594 Drift Road, Westport, MA 02790
(508) 636-2237



Apples - Pears - Peaches
Sweet Apple Cider - Squash
Westport Macomber Turnips
Hay & Custom Work



BERNIE PEABODY N1IMO
DICK WILBORG W1ZC

BELTRONICS, INC.

AMATEUR RADIO SERVICE DIVISION
www.beltronics.net

603-465-2422
603-889-7905
800-323-5876

P.O. BOX 330
19 PROCTOR HILL RD.
HOLLIS, NH 03049
FAX 603-465-3320



Cappuccino Bagels
Gourmet Muffins
Espresso Cream Cheeses



Boston Coffee & Bagel

122 Allen Street, New Bedford, MA 02740
(508) 992-3064

Also serving fine deli lunches

NEW BEDFORD LINGUICA COMPANY, INC.

Manufacturers of



Fragozo
PURE FOOD PRODUCTS

56 Davis Street
New Bedford, MA 02746
<http://www.fragozo.com>

Phone (508) 992-9367
Fax (508) 992-9398
Credit Cards Accepted

A POINT TO PONDER

"If a man does his best, what else is there?"

- General George S. Patton
(1885-1945)



KA1THM

Broadcast Audio Systems

"Shouldn't your voice sound like you?"SM

- Commercial Audio Equipment
- Cabling- Transmission/Audio
- RF Receivers- Scanners/SWL
- Microphones- Broadcast/Studio

Mathew Vangel
KA1THM

North Dartmouth, MA.
www.ka1thm.com
ka1thm@ka1thm.com
(508)-998-6990

A. None

SEMARA NET DIRECTORY

— **RAGCHEW** —
Sat - 8 p.m. & **Sun** - 8 a.m.
 28.700 USB
Daily - 7 p.m. 147.000+
Mon--Fri 7:30 a.m. 3.872

— **SEMCARES NET** —
 1st Sunday each month at 7:30 p.m.
 145.490- (Fairhaven Repeater)
FAIRHAVEN WEATHER NET
Mon--Fri 8:00 p.m. 145.490-

SWAP NET — Mondays at 7:30 p.m. on 147.000+

2004 FLEAMARKETS
28 March Framingham MA—FARA
 Bev N1LOO 508 626 2012
18 April Cambridge MA—FLEA at MIT
 Nick 617 253 3776

SEMARA WEBSITE:
<http://www.semara.org>
 E-MAIL: info@semara.org

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
146.655 -	88.5	WA1GPO	Falmouth	442.600 +	100.0	K1LIQ	Tiverton, RI
146.685 -		W1LM	Plymouth	443.450 +	88.5	K1MYL	Westport
146.700 -		K1CR	Cranston, RI	443.500 +	141.3	K1PBO	Barnstable
146.730 -		W1SGL	Sandwich	443.600 +		NS1N	Norwell
146.760 -		W1HQV	Scituate, RI	443.800 +	88.5	W1RJC*	Dartmouth
146.955 -	88.5	K1PBO	Dennis	444.200 +	118.8	N1YHS	Bourne
147.000 + SEMARA	67.0	W1AEC	Dartmouth	444.250 +	141.3	WA1GPO	Falmouth
147.135 +	67.0	ND1N	Taunton	444.350 +	88.5	W1ACT	Fall River
147.180 +	67.0	W1MV	Bridgewater	444.550 +	88.5	W1MV	Bridgewater
147.345 +	88.5	KB1QL	Vineyard	447.075 -	88.5	N1DZD	Kingston
* Nodes: IRLP=4617, EchoLink=142790				* Nodes: IRLP =4259, EchoLink=4259			

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

SEMARA

FIRST

PLACE LABEL HERE