



# ZERO BEAT

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



OUR 68th YEAR

Volume 36, Issue 5

SEMARA W1AEC

May 2000



## PRESIDENT SMITH GRANTS "PARDONS" TO BOB & HENRY

Club President Chris Smith, K1CJS, presented "Official" certificates of pardon to Bob Metivier, N1XZJ, and Henry Blanchett, W1GYL, for accidentally hiding in an unauthorized location during the March foxhunt.

It was during that infamous March foxhunt that Bob & Henry found themselves padlocked inside the New Bedford sewage treatment facility at Fort Rodman. To this day Bob and Henry maintain they never saw the signs posted on the gateway to the restricted area. Signs that clearly indicate only authorized vehicles may enter the facility.

Bob and Henry received their "official" certificates of pardon during a brief ceremony held prior to the start of the April Foxhunt. President Smith felt it was time to put the past behind us and move on to bigger and better hunts. We're sure Bob and Henry agree with the president's feelings!



## MEETING HIGHLIGHTS

The April business meeting was called to order at 7:12 pm by President Chris Smith. Thirty-three members and two guests were present, including the president of the Fall River radio club. Following the salute to the flag and roll call, the Secretary's and Treasurer's reports were read and accepted.

Committee reports followed: *Technical* – Hum problem with repeater after about 5 minutes of use. Card lock system in final testing. Plans call for it to be online by May with complete transfer to system by June. *Activities* – No report. *Buildings and Grounds* – Three property markers installed on west property line at points marked by surveyor. Oil tank to be topped off this summer. *Ham Class* – No report. *Scholarship* - No report. *Constitution* – Still under review. *Tower* - None.

*Communications* - A thank you letter from Bill Mercier, WB1ERS, was read. (A life membership was conferred on Bill for the donation of a copier he recently made.)

*Ratifications* - Howard E. Michel, WB2ITX, was voted a member of the association.

*Old Business* - None

*New Business* - The following motions were made and approved:

- 1.) A motion to donate \$100 to the Avon Cancer Walk.
- 2.) A motion to buy a new lockset for the side door for use with the card system,

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Published monthly by the  
**Southeastern Massachusetts  
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 54 Donald Street,  
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**EDITOR**

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 Phone: (508) 996-2969  
 E-Mail: billmiller@netzero.net

\*\*\*\*\*

**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.

**MEETING-** continued from page one

cost not to exceed \$150.

*Good of the Club* - History books still available for sale. Bill Miller requests that any errors in the history book be brought to his attention to assure the Second Edition is correct.

22 students from the De-Mello school will visit the club on May 1st as part of a field trip exploring radio. Bill Miller will oversee the tour of the clubhouse.

Charlie Days donated a stapler to the club. *Thanks Charlie!*

Repeater upgrades and a time plan to implement them will be discussed at the next Board of Director's meeting with recommendations brought before the membership during the May 4th meeting.

A "Nostalgia Night" is planned for 7 pm on April 20th with VCRs of Lincoln Park to be shown. Popcorn and hot butter will be available.

After the meeting was adjourned, an auction of two "surprise boxes" along with several items donated by Rick Cabral, N1RFH, was held. Bill Miller was auctioneer. The club made \$22 from the sales, after which several members headed to "Me & Ed's" for a bite to eat (steak sandwiches!) and some ragchewing.

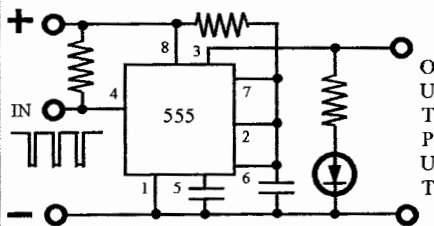
## NEXT SEMARA VE SESSION

May 6, 2000  
 10:30 am  
 SEMARA Clubhouse

## LOCAL VE SESSIONS IN MAY

- 08 Brookline, MA**  
 Bob Wondolowski  
 508-865-5822
- 11 Providence, RI**  
 Judy Nelson  
 401-231-9156
- 13 Falmouth, MA**  
 Ben Fleck  
 508-540-2583
- 20 Marlborough, MA**  
 William Wade  
 781-891-9079
- 24 Cambridge, MA**  
 Nick Alterndbernd  
 617-253-3776

### NAME THAT CIRCUIT



- 1.) Pulse Width Modulator
- 2.) Voltage Controlled Oscillator
- 3.) Phase Lock Loop
- 4.) Missing Pulse Detector
- 5.) Frequency Divider

ANSWER - See page 7

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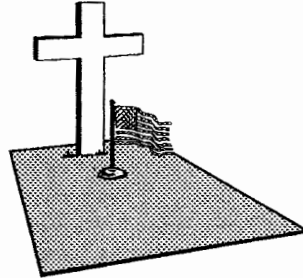
*"Science is organized knowledge.  
 Wisdom is organized life."*

**Immanuel Kant**

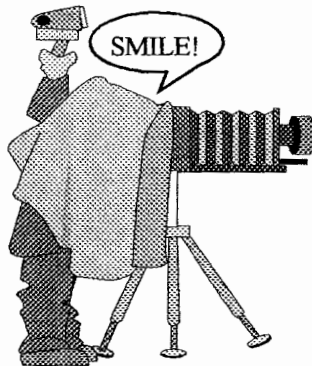


# CLUB NOTES

May is the month of renewal. Spring is in the air! Mother's Day falls on 15th, Armed Forces Day on the 20th, and Memorial Day on the 29th. Three days of remembrance in one month!



All members, and especially new members, are urged to either loan the club a picture of themselves to be scanned, or have Bill Miller take their picture. The pictures are posted in the member's photo gallery on the club's web page and used in ZERO BEAT.



Oops! Last month I neglected to report a club member that passed the No-Code Technician exam earlier this year, **Raymond Arruda, KB1EVX**. *Congratulations Ray!*



**Ted Przymierski, N1XXQ**, donated a black & white computer monitor to the club for use on the card lock system. It is working fine and is much appreciated. *Thanks, Ted!*



Club history books are still available for \$11 each. Contact Chris Smith, K1CJS, (324-6230) to get your copy, or drop by the club on meeting night or on Sunday morning.



**CLUB HISTORY  
First Edition**

## IMPORTANT NOTICE

The new card access system to the clubhouse has been installed. The system will log the time and member identity whenever the system is used. Cards will be issued in the later half of the month of May. The old key must still be used to gain access to the clubhouse until the new system is put on line following the June business meeting. After the June business meeting, only the card system will allow access to the clubhouse.

When using the card system, please insert the card with the markings on top and smoothly insert and remove the card. The door latch will release for 5 seconds to allow access. In an emergency any club officer can open the door with his override key.

**Bob Metivier, N1XZJ**, Vice President of our club had a Transient Ischemic Attack (TIA) early in the morning of April 15th. Following a brief stay at St. Lukes hospital, he returned home for convalescing. We wish Bob a speedy and complete recovery.

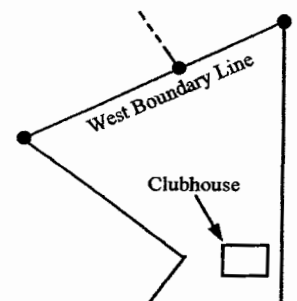


**Henry Deslaurier, WA1CQJ**, sends along this nifty URL for DX fans. It shows who's on the air and on what frequency!

[Http://oh2aq.kolumbus.com/dxs/](http://oh2aq.kolumbus.com/dxs/)

# DX

Permanent boundary markers (3 galvanized posts) have been installed 1 foot from the west property line of the club. Thanks go out to: Ed Blouin, Bill Field, Bill Miller, Andy Reuter, and Scott Szala.





# MORSE CODE STORY



Last year on July 12th the last maritime Morse Code transmission from a United States commercial facility took place. The historic transmission took place from Globe Wireless station KFS in California on the 500 kHz International distress frequency. The text of that final CW transmission:

CQ DE KFS

BT

THIS IS THE FINAL CW TRANSMISSION FROM STATION KFS - THE LAST COMMERCIAL RADIOTELEGRAPH STATION IN NORTH AMERICA. APPROPRIATELY, WE CLOSE CW AND EMBARK ON A NEW ERA OF COMMUNICATION WITH SAMUEL F. B. MORSE'S WORDS OF 155 YEARS AGO.

BT

NW CL 73

BT

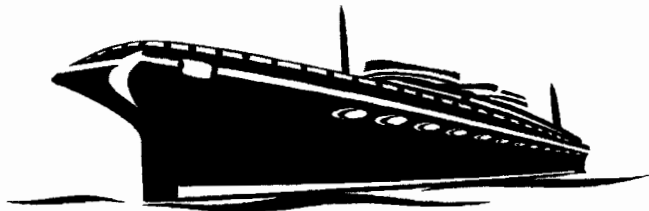
WHAT HATH GOD WROUGHT?

BT

DE KFS VA

Two years earlier, on January 31, 1997, the last Morse Code transmission from France took place. Their last transmission was rather poetic:

CALLING ALL. THIS IS OUR LAST CRY BEFORE ETERNAL SILENCE.



The end of Morse Code in maritime communications was brought about by the Global Marine Distress and Safety System (GMDSS) which began operations in 1992. International regulations mandated that all vessels over 300 tons be online with GMDSS by February 1, 1999. That date essentially marked the end of the Morse Code era, even though the use of Morse Code for maritime

communications was steadily declining since the early 1980s when various satellite based communications systems made inroads into the area.

The GMDSS system is far superior to the old Morse Code system especially when a ship is in distress. No special knowledge or skill is required to send a distress call over the GMDSS system. In fact, anyone on board can activate a distress call by simply pressing a button - the GMDSS system immediately sends the ship's identification number and precise location. And so, after a century of maritime use, Morse Code has finally slipped beneath the waves...



Bear in mind, however, that Morse Code is not doomed completely. It will still see continued use by amateur radio operators, some members of the armed forces, and of course spies.

Samuel F. B. Morse, "The father of the telegraph", didn't invent the code that bears his name by himself. In fact he originally intended to transmit only numbers over telegraph lines. He planned to publish a special dictionary listing various strings of numbers that would correspond to words and phrases. Indeed a code, for you would need the code book (his Special Dictionary) to decode it! Fortunately, Morse abandoned that idea early on and with the help of his assistant, Alfred Vail, devised the code that we know today - a code for both the alphabet and numbers. A code more properly called the Morse-Vail Code. And now you know the rest of the story.

In 1871, a year before his death, Morse himself said goodbye to the global community of telegraphers. After a lavish banquet, complete with many adulatory speeches, Morse sat at the operator's table and placed his fingers on the key. That key was connected to every telegraph system in America! Morse tapped out his final farewell to a standing ovation. Morse's "instantaneous highway of thought" (as it was called in his day) lasted over a century and one-half and is still in use to this very day. Will today's "information superhighway", the Internet, last as long? Only time will tell, but it is highly unlikely...



# MORSE CODE TIDBITS



Telegraphy operators developed a shorthand for commonly used phrases and words which have since become part of our language. Newspaper reporters still mark the end of their copy with 30, Morse code for "I have no more to send."

\*\*\*\*\*

# 73

Amateur Radio Operators send 73 -- the code for best wishes.

\*\*\*\*\*

# OK

There is good reason to believe that O.K. was first used in telegraphy. As early as the 1840s, it was listed in telegraphy manuals -- O.K. was "That is correct."

\*\*\*\*\*



The first Morse machines scribed the dots and dashes on a

moving strip of paper. Operators of the day found that they could decode the sound of the scriber by ear, so the scribing machines were scrapped.

\*\*\*\*\*

## AMERICAN MORSE INTERNATIONAL CONTINENTAL

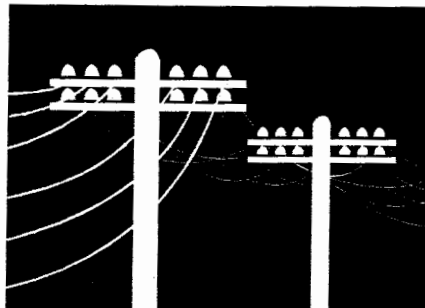
Several codes have been devised in the past, notably American or landline and International or Continental.

American Morse was used by railroads, Western Union, and other utilities in North America.

It was superceded by International Morse which was used in Europe and particularly on the Trans-Atlantic cable.

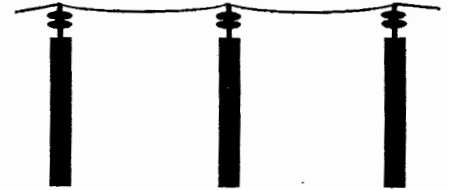
Because the British Marconi Company supplied most of the early shipboard operators, International Morse became the standard for radio telegraphy.

\*\*\*\*\*



An early telegraphic scheme before Morse code used 26 wires -- one for each letter of the alphabet!!!

\*\*\*\*\*



Originally, two wires were used for telegraphs, later when they found one tied to ground worked just as well -- only one wire was strung.

\*\*\*\*\*

# SOS

SOS was originally proposed as SOE by the Germans. A committee decided otherwise -- due to the possible loss of a single dit (E).

\*\*\*\*\*

# CQ, CQ, CQ

Early telegraphic CQ was a general call -- a "Hey everyone - listen up" type of thing.

\*\*\*\*\*



Early CW spark transmitters directly keyed the high voltage circuits! Operators that came into contact with the metal parts of the key could be electrocuted.



# TIM SMITH WINS FOXHUNT WITH DOPPLER DF SYSTEM

**T**im Smith, N1BTQ, won the April foxhunt using his "Doppler" direction finding system. Actually, the system is a "Time Difference of Arrival" (TDOA) System.

Tim used the kit put out by Ramsey to build his direction finder. The four antenna setup on the roof of his car was impressive. It also worked great as his first place win attests to!

Second place went to the team of **Bill Miller, K1IBR**, and **John Rogers, N1GXU**. They also used a TDOA direction finder. Their system was homebrewed by Bill Miller and featured an analog output read on a large center-scale meter. The meter pointed in the direction of the incoming signal.

Third place went to **Bob Metivier, N1XZJ**, and **Henry Blanchett, W1GYL**. They used the "S" meter on their ra-

dio to home in on the fox.

Fourth place went to **Ed Blouin, KA1AW**, and his sidekick **Nikita, K9DOG**. Several people reported seeing Ed's car fly by with Nikita's head out the window as she "sniffed" the trail to victory. Maybe Ed has got something going there, although a bloodhound might work better.

Last, but not least, was **Charlie Days, WA1JFD**. Charlie had radio trouble midway through the hunt. Hopefully the radio will be fixed by the next hunt and Charlie will fair better.

The fox on this hunt was **Chris Smith, K1CJS**, who hid on the dead end street down by the Wharf Tavern (east of the old



TIM SMITH'S DF ANTENNA SETUP

train yards.) It was a good site as he put a killer signal into the Rockdale Avenue area several miles away. Many hunters wandered about aimlessly in the upper Rockdale Avenue area as a result!

Following the hunt, everyone went to Me & Ed's restaurant for a bite to eat and some good old-fashioned rag-chewing.

## N6DEO's SHACK

Here is a view of Roland Hyham's shack. Roland was the first Secretary of the club back in 1932! Roland is not only still active with amateur radio, but is also active on the Internet too. Roland's E-Mail address is:

[roland132@juno.com](mailto:roland132@juno.com)



### TECHNICAL TIPS

Lead-acid battery cables are prone to corrosion. Often the corrosion will work its way up into the copper wire under the plastic jacket on the cable.

To lessen such activity, terminate the copper cable in a heavy-duty lug and then seal the copper wire to the lug completely with solder, especially on the side towards the mounting hole. Be sure to use a tin coated lug!

Next, seal the lug to the cable using extra heavy-duty heat shrink tubing that has a thermo sealant inside.

After connecting the lugs to the battery, coat the lugs and terminal with a quality anti-corrosion spray designed specifically for battery use. Done!

### 2000 FLEAMARKETS

- May 12, 13 - Rochester, NH
- May 20 - Forestdale, RI
- May 21 - MIT Cambridge, MA
- May 27 - Vernon, CT
- June 10 - FARA Falmouth, MA
- June 18 - MIT Cambridge, MA
- July 16 - MIT Cambridge, MA
- Aug 20 - MIT Cambridge, MA
- Aug 26, 27 - Boxboro, MA
- Sept 10 - SEMARA!
- Sept 16 - Forestdale, RI
- Sept 17 - MIT Cambridge, MA
- Oct 6, 7 - Rochester, NH
- Nov 18 - Newton, MA

### NET DIRECTORY

— Sunday —  
 8 am 28.375 SEMARA NET  
 9:30 am 50.225 Yankee SSB  
 7 pm 147.000+ Swap Net

— 4th Sunday —  
 9 pm 449.575 EM-ARRL

— Daily —  
 5:30 pm 3.915 EM/RI NTS ssb  
 7&10 pm 3.658 EM/RI NTS cw  
 6:45 pm 147.315+ NTS/Trivia  
 7 pm 146.550 SEMARA NET  
 8 pm 145.230- EM-NTS

— Monday to Friday —  
 8 am 14.262 SEMARA NET  
 8 pm 145.490- Weather

— Thursday —  
 8 pm 147.180+ Trivia

— Saturday —  
 1800G 14.300 Coast Guard

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

### VISIT THE SEMARA WEBSITE

[WWW.LRH.NET/SEMARA/SEMARA.HTM](http://WWW.LRH.NET/SEMARA/SEMARA.HTM)

SEND E-MAIL TO: [W1AEC@ARRL.NET](mailto:W1AEC@ARRL.NET)

### "NAME THAT CIRCUIT" ANSWER

4.) Missing Pulse Detector

### SEMARA OFFICERS 2000



**President** Chris J. Smith, K1CJS  
**Vice-President** Robert Metivier, N1XZJ  
**Secretary** Henry Blanchett, W1GYL  
**Treasurer** John Carreiro, W1ZYV

**Board of Directors:**

Martin Jordan, KAIYFV  
 William Miller Jr., K1IBR  
 Scott Szala, W1EV

**Trustees:**

Norman Riley, W1ATI - Chairman  
 Frank Fonseca, WB1ASD  
 Martin Jordan, KAIYFV  
 William Vincent, W1POW  
 Edward Blouin, KA1AW

### SEMARA EVENT CALENDAR

#### MAY 2000

- 4 - Business Meeting, 7:00 pm
- 6 - VE Session, 10:30 am
- 11 - 2 Meter Foxhunt @ clubhouse, 7:00 pm
- 18 - Tech-Talk, "The Weather and You" by Bob Metivier, N1XZJ



#### JUNE 2000

- 1 - Business Meeting, 7:00 pm
- 3 - VE Session, 10:30 am
- 8 - 2 Meter Foxhunt @ clubhouse, 7:00 pm
- 15 - Tech-Talk, "All About Hacking II" by Tim Smith, N1BTQ

### SEMARA

Coffee Hour at the clubhouse every Sunday at 9:00 am. Drop by and ragchew!

## LOCAL REPEATER DIRECTORY

Frequency	CTCSS	Call	Location	Frequency	CTCSS	Call	Location
<b>144</b>				<b>440</b>			
145.150 -	123.0	WAIDGW	Fall River	441.400 +	192.8	WGIU	Assonet
145.490 -		KA1WBF	Fairhaven	442.200 +	88.5	N1NRL	Fall River
146.445 +1Mhz	91.5	KB1BWN	Dartmouth	442.350 +		N1OFD	Acushnet
146.655 -	88.5	WA1GPO	Falmouth	442.600 +	100.0	K1LIQ	Tiverton, RI
146.685 -		WILM	Plymouth	443.450 +	88.5	K1MYL	Westport
146.955 -	88.5	K1PBO	Dennis	443.500+	141.3	K1PBO	Barnstable
147.000 +	67.0	W1AEC	Dartmouth	443.600 +		NS1N	Norwell
147.045 +		WA1AIC	Dennis	443.800 +	88.5	N1RFH	Dartmouth
147.135 +	67.0	ND1N	Taunton	444.200 +	118.8	N1YHS	Bourne
147.180 +	67.0	W1MV	Bridgewater	443.850 +	131.8	W1ARM	Chatham
147.315 +	156.7	N1BBT	Wareham	444.250 +	141.3	WA1GPO	Falmouth
<b>220</b>				444.350 +	88.5	W1ACT	Fall River
224.340 -		K1KEK	Dennis	444.550 +	88.5	W1MV	Bridgewater
224.840 -	100.0	K1LIQ	Tiverton, RI	447.075 -	88.5	N1DZD	Kingston

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