



ZERO BEAT

Southeastern Massachusetts
Amateur Radio Association, Inc.
54 Donald Street, PO Box 80007
South Dartmouth, MA 02748



Volume 32, Issue 7



SEMARA



July 1997

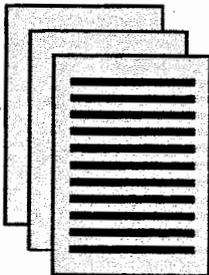
TOWER NEGOTIATIONS UPDATE

Negotiations with Bell Atlantic NYNEX Mobile are proceeding along well. We are rounding the last corner and heading for the finish line!

In late May, NYNEX mailed us a rough draft of the lease they are proposing for our site. The Tower Negotiating Committee reviewed it and proposed several changes. A copy of the changes was faxed to the NYNEX lawyers, Barron & Stadfeld of Boston, and then a meeting was held on June 5th at the clubhouse to discuss the proposed changes.

Following the June 5th meeting, Barron & Stadfeld revised the lease and sent a copy back to us. On June 16th, the Tower Negotiating Committee reviewed the revised lease and found it needed a little more "fine tuning".

At the present time, as we go to press, we are waiting on Tara Rand of NYNEX to provide us with the answers to several questions raised at the June 5th meeting. Once we have that information in hand, we plan to meet with NYNEX again with the intent of finalizing the lease.



MEETING HIGHLIGHTS

The June business meeting was called to order at 7:02 PM by President Marty Jordan. Twenty-four members and two guests were present. Following the salute to the flag and roll call, the Secretary and Treasurer's reports were read and accepted.

Committee reports followed: *Technical* - No Report. *Buildings and Grounds* - No report. *Scholarship* - No report. *Tower Committee* - Negotiations ongoing, see report on this page. *Fleamarket - Fliers* available in the literature rack.

Under ratification's, **Bernard Desrosiers, N1ZCS**, was voted a conditional member, and **David J. Aguiar, N1YCR**, was voted into full membership.

New business - The membership voted to allow **Ken Raposa, K1NSX**, to use the meeting hall for a reception, and waived the normal fee since he gave a Tech-Talk earlier this year.

Following the business meeting adjournment at 7:36 PM, a 486DX-33 mother board, and other computer items were raffled off to benefit the club's treasury. The items were generously donated by **Rick Cabral, N1RFI**. Members also signed a "get well" card made by **Al Crook, N1ALN**, for **Norm Riley, W1ATI**, who is convalescing with a fractured vertebra.

DARTMOUTH TOWER BY-LAW APPROVED!

On May 27th, members of the Dartmouth Town Meeting voted to pass the new Communications Tower By-law without any changes. This by-law balances the amateur radio operators need for a tower with the concerns of the community.

Under the new By-law, amateur radio operators can erect up to a 100 foot tower by right. (Naturally, a proper building permit will be required.) Prior to this new By-law, any tower over 35 feet required a variance. Since most amateur radio towers are

☛ BY-LAW Page 2

APOLOGY

In the rush to get last month's issue of *ZERO BEAT* out a week early, several mistakes were made regarding the Dartmouth Town Meeting. (The issue was published a week early to notify members of the upcoming town meeting.)

First, it was never mentioned that town meetings are held in the High School auditorium. Second, the time was stated incorrectly as 7 PM when in fact it was 9 AM. Finally, it should have been mentioned that the Tower By-law was item number 18 on the town warrant.

I sincerely apologize for any inconvenience my deficient article may have caused.

Bill Miller - Editor

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 54 Donald Street, PO Box 80007
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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.

BY-LAW - continued from Page 1

over 35 feet, in the past Dartmouth amateurs invariably had to get a variance to put up a tower. Now they need only get a building permit provided the tower is 100 feet or under.

To say this is a major change would be an understatement. Originally, the new By-law (when first proposed) allowed amateur towers up to 50 feet by right. Although this was a step in the right direction, it was insufficient to meet the amateurs needs. Since the tree canopy in New England varies from 60 to 100 feet in mature forests, a 100 foot limit on height for towers by right makes more sense.

With that thought in mind, the association's Board of Directors authorized Vice-President **Bill Miller, K1IBR**, to present the club's position during the public hearings held on the proposed By-law. Bill eventually spent 5 hours meeting with the Dartmouth Planning Board, and the rest is history.

A big "THANK YOU" to all the members that showed support for this undertaking by attending and speaking at the public hearings and the town meeting. Your support and commitment made all this possible.

REPEATER EMERGENCY NUMBERS UPDATED

Thanks to a notification from **Tony Duarte, N1XRS**, the repeater emergency numbers have been updated.

Recently, when Tony tried to call the Acushnet police via the repeater, he got the wrong number. Tony notified **Bill Miller, K1IBR**, that the Acushnet police speed-dial number in the repeater was wrong. Upon investigation, several others were found to be incorrect.

As a result of Tony's notification, all speed-dial emergency numbers have been checked and reprogrammed as necessary.

When all the area towns went to the 911 emergency number recently, several dropped the old police emergency number, while others kept it as an alternate number. And the plot thickens because others got new alternate numbers in addition to the 911 number. (All towns have an alternate emergency number.)

If you dial 911 over the repeater you will get the Dartmouth police department. If you speed-dial a police department over the repeater, you will be connected to that towns alternate emergency number (including the town of Dartmouth).



FLEAMARKET CALENDAR

July 20 - Flea at MIT



NET DIRECTORY

— Sunday —

8am 28.375 General
 9:30am 50.225 Yankee SSB
 3pm 28.470 UFO
 7pm 147.000+ Swap Net

— 4th Sunday —

9pm 449.575 EM-ARRL

— Daily —

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

— Monday to Friday —

8am 14.262 UFO
 8pm 145.490- Weather

— Saturday & Sunday —

8am 7.237 UFO

— Thursday —

7pm 14.264 UFO
 8pm 147.180+ Trivia

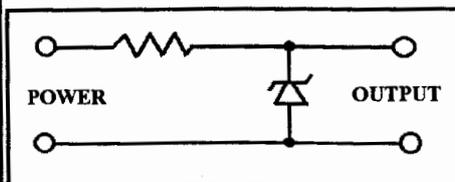
— Saturday —

7:30pm 3.978 UFO
 1800G 14.300 Coast Guard

— ARES NET —

1st & 15th of the month at 7:30 pm
 147.000+ on the 1st
 145.490- on the 15th

NAME THAT CIRCUIT



1. Impulse Generator
 2. Zener Voltage Regulator
 3. Tunnel Diode Oscillator
 4. Pin Diode Ramp Generator
- ANSWER - See Page 6

SEMARA VE SESSIONS

All sessions held on Saturday at 10:30 AM except for Fleamarket Sunday, September 14th, when the session begins at 10 AM.

July 5
 September 14
 September 27
 November 1

GRASS CUTTERS HALL OF FAME

Anyone is eligible for induction into the *Grass Cutters Hall of Fame*. All one need do is cut the grass at the club and BINGO! you are automatically listed in the *Grass Cutters Hall of Fame*. To date, the following members have been inducted into the fraternity (will you be next?):

- May 8 **John Carreiro, W1ZYV**
Bill Vincent, N1LTY
- May 18 **Marty Jordan, KA1YFV**
Bill Miller, K1IBR
- May 30 **Andy Reuter, WA1FNM**
Bill Miller, K1IBR
- June 7 **Rick J. Cabral, N1RFH**
Bill Miller, K1IBR
- June 18 **Ed Rovas, WA1VXY**
Bill Miller, K1IBR
- ?????? **YOU!**

If you are interested in joining this elite group, cut some grass!



WEB PAGES UPDATED

Rick, N1RFH, announces that he has just completed the reconstruction of his web pages, including his SEMARA homepage. They are chock full of useful information. Check them out at the following addresses:

Amateur Radio Online!

<http://members.aol.com/N1RFH>

RI Swap & Sell Net Listings

<http://members.aol.com/N1RFH/swapnet>

SEMARA Unofficial Web Site

<http://members.aol.com/N1RFH/semara>

WILL SOLAR CYCLE 23 BEAT OUT 19 (1958)?

The year 1958 is remembered by "old timers" as the year you could talk around the world on ten meters!

The number of sunspots counted that year was the highest ever recorded. Since there is a direct correlation between the number of sunspots and the maximum usable frequency (MUF), more sunspots translates into higher and higher frequencies spanning the globe.

For example, as the number of sunspots increases, the ability to talk long distances on ten meters will be enhanced. Eventually, if the number of sunspots becomes high enough, you will be able to span the world!

Of particular interest during high sunspot activity is a phenomenon know as F2 propagation which is unique to six meters. Vast distances can be spanned during F2 propagation. F2 openings occur primarily during the spring and fall (near the equinoxes). Look for such openings during the years 1998 through 2001.

The coming cycle is a mystery. No one can predict whether it will be a boom or a bust. However, now is the time to prepare, just in case a repeat of 1958 occurs.



ANOTHER SEMARA?

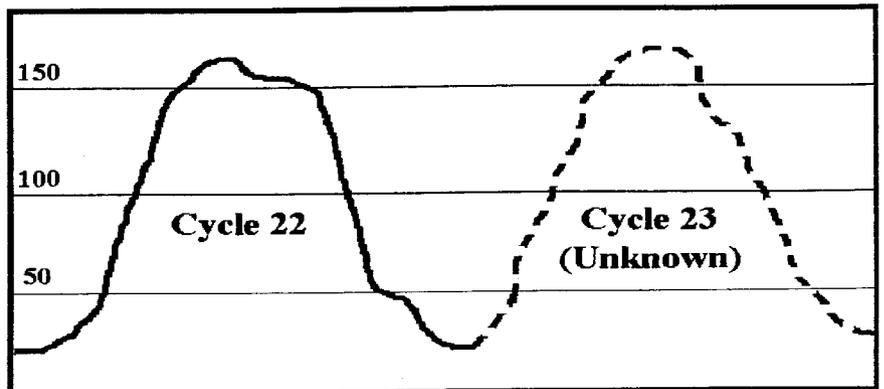
Yes, it's true! There is another SEMARA. The club is in the Detroit, Michigan area and is called the South Eastern Michigan Amateur Radio Association.

Their newsletter is called the *SEMARA Signal* and past issues are available for viewing on the Internet at: www.rust.net/~smurphy/semara/ signal.

Rick Cabral, N1RFH, just happened to "discover" the other SEMARA while upgrading his SEMARA web page. He used AltaVista to do a web search to make sure his SEMARA site was listed. VOILA! Not only was his SEMARA site listed, but also the Michigan SEMARA site too.

Bill Miller, K1IBR, contacted the Michigan SEMARA club via E-Mail and invited them to join in a newsletter swap. Steve Murphy, KB8RWQ, of their club replied that we will be put on the mailing list and should receive the next issue due out in September. (The school they meet in closes for the summer, so they have no formal meetings and do not publish their newsletter in July and August.)

SOLAR CYCLES 22 AND 23 PLOT OF TOTAL SUNSPOTS PER YEAR



1986

1991

1996

2001

2006



BITS - N - PIECES



Compiled from The ARRL Letter, a publication of the American Radio League, and Ham Radio Online magazine, available free on the Internet at <http://www.hamradio-online.com>

FCC ISSUES NEW FORM 610

The FCC has issued a new Form 610 dated March 1997. Upon issuing the new form, the FCC noted that it will still accept older versions of the Form 610 dated November 1993 and March 1995 until further notice.

The changes on the new form are minor. The new form has a line where the applicant can indicate an Internet E-Mail address if applicable.



And the environmental impact question (old item number 6) has been replaced with a certification that the station would not have any significant environmental effect.

STATE OF THE ART TRANSCEIVER UNVEILED AT DAYTON HAMVENTION

The newest ham radio "toy" is an intriguing piece of gear that attracted the curious at the Dayton Hamvention.

Kachina, a company unknown to most hams, unveiled their 505DSP - a computer controlled 100 watt high frequency transceiver with no knobs, buttons or meters. In fact, it has no front panel!



The transceiver is a compact box that you interface with and control from your Windows-capable computer. A panel is mounted in a standard CD-ROM bay on your PC for interfacing your mike and key with the system. All control is via

the keyboard and mouse using on-screen icons and pull down menus.

Kachina is a US firm based in Arizona. They have been well known in commercial circles for over two decades. Three years of development went into the design of the 505DSP. The transceiver is scheduled for release in July with a price tag just a little under \$2,000.

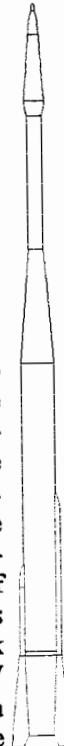
Also demonstrated at the Dayton Hamvention were several PC controlled receivers manufactured by Ten-Tec, Collins, and ICOM.

AMATEUR ROCKET LAUNCHED WITH SECONDS TO SPARE

Several records were set during the launch of a rocket carrying amateur radio TV and packet systems. The launch was actually a combination of a balloon and rocket called a "rockoon". The launch took place off the coast of Hamstead, North Carolina.

The launch was almost a failure. The launch team had hoped to launch the rocket from the balloon at 100,000 feet. However, at about 60,000 feet a seam on the balloon ruptured and the balloon, gondola, and rocket began a fast drop towards the Atlantic ocean!

The command was sent to fire the rocket, and after three attempts the rocket finally ignited. It is estimated that the rocket reached an altitude of 38 miles. The ATV system on the rocket provided about 30 seconds of spectacular views of the earth, although the rockets spin made it difficult to lock onto a good picture. The ATV system in the balloons gondola performed flawlessly until the



gondola splashed into the Atlantic ocean.

According to **Bill Brown, WB8ELK**, of the Huntsville, Alabama L5 Society (a chapter of the National Space Society), three records were set: 1) First amateur launch of a balloon, 2) Highest launch of a hybrid rocket (hybrid referring to the fuel combination - nitrous oxide and asphalt), and 3) The highest flying hybrid rocket to date.

ASTRONAUTS ON STS-94 MISSION TO TALK TO SEVENTEEN SCHOOLS!

As part of the shuttle Columbia's mission during STS-94, astronauts will talk via amateur radio with 17 schools, including one in the People's Republic of China. The program is called the Shuttle Amateur Radio Experiment (SAREX). STS-94's launch is set for July 1st.

The astronaut hams are **Jim Halsell, KC5RNI**, mission commander; **Janice Voss, KC5BTK**; and **Donald Thomas, KC5FVF**.

The only school in New England taking part in this experiment is Dunn's Corners Elementary School in Westerly, Rhode Island.

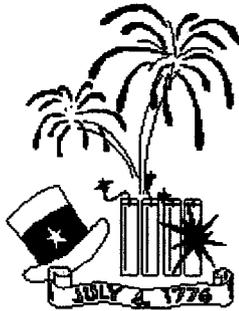
NOTICE

THE RACES/ARES TRAINING SESSION HAS BEEN RESCHEDULED TO SUNDAY, AUGUST 3rd, 9 AM AT AREA II HEADQUARTERS IN BRIDGEWATER. CALL THE EMERGENCY MANAGEMENT OFFICE IN NEW BEDFORD FOR DIRECTIONS.



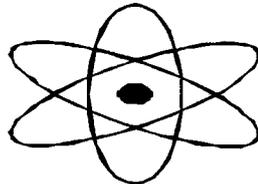
CLUB NOTES

July 4th! Fireworks! Fun! The "vacation month" to many. Where did Spring go? The native sweet corn should be on sale by mid-month. This is the month that charcoal manufacturers lust for! Light up those fires. Enjoy the smell of hickory embers glowing in the Hibachi, followed by the great taste of a barbecued burger.

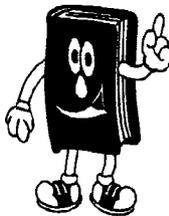


Two atoms were overheard talking to each other:

- 1st - I've lost an electron.
- 2nd - Are you sure?
- 1st - I'm POSITIVE!



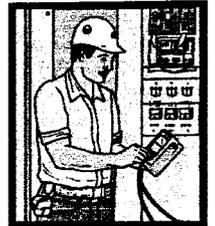
Ed Rovas, WA1VXY, picked up a few extra copies of the Dayton Hamvention booklet when he was there recently. They are at the club if you would like a copy. Also, there are still a few copies of the USAF Electronic Systems Center booklet available.



Norman Riley, WIATI, is recovering from a nasty fall he took in his kitchen in late May. He fractured a vertebra in the fall. During his recovery Norm cannot sit, he can only stand or lie down. Norm will be in recovery about six weeks. We wish Norm the best.



It appears that time has caught up with the ballasts in the meeting room fluorescent lights. In the last six months several have burnt up and had to be replaced. All ballast replacement work was coordinated and supervised by **Ed Rovas, WA1VXY**, the club's "electrician extraordinary".



Guess who's back in town! **Joe Fortin, K4KTZ**. You can catch him on the Sunday morning 10 meter net at 8 AM on 28.375.



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Vice-President William M. Miller Jr., K1IBR
Secretary Richard J. Cabral, N1RFH
Treasurer Lawrence R. Houbre, Jr. AA1FS

Board of Directors:
John Carreiro, W1ZYV
Robert Peckham, KA1YDG
William Vincent, N1LTY

Trustees:
Edward Blouin, KA1AW - Chairman
Andrew Reuter, WA1FNM
William M. Miller Jr., K1IBR
Norman Riley, WIATI
Frank Fonseca, WB1ASD

SEMARA EVENT CALENDAR

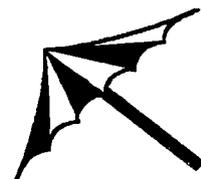
JULY 1997

- 3 - Business Meeting
- 11-13 - ARES - Whaling City Festival
- 17 - Tech-Talk "Advanced DOS"



AUGUST 1997

- 2,3 - ARRL National Convention, FL
- 7 - Business Meeting
- 14 - ARES Meeting, 7:30 PM
- 21 - Tech Talk - "Packet Radio Systems"



LOCAL REPEATER DIRECTORY

Frequency	CTCSS	Call	Location	Frequency	CTCSS	Call	Location
144				440			
145.150 -		WAIDGW	Fall River	441.400 +	192.8	WGIU	Assonet
145.490 -		KA1WBF	Fairhaven	442.200 +		N1NRL	Fall River
146.445 +1Mhz	91.5	KB1BWN	Dartmouth	442.350 +	141.3	N1QWW	New Bedford
146.655 -	88.5	WA1GPO	Falmouth	442.600 +	100.0	K1LIQ	Tiverton, RI
146.685 -		N1OEG	Plymouth	443.450 +	88.5	K1MYL	Westport
146.700 -		K1CR	Cranston, RI	443.600 +		NS1N	Norwell
147.000 +		W1AEC	Dartmouth	443.800 +	88.5	N1RFH	Dartmouth
147.045 +		WA1AIC	Yarmouth	443.850 +	131.8	W1ARM	Chatham
147.135 +	67.0	ND1N	Taunton	444.250 +	141.3	WA1GPO	Falmouth
147.180 +	77.0	N1FDX	Bridgewater	444.550 +		N1FDX	Bridgewater
147.315 +	156.7	N1BBT	Wareham	447.075 -		N1DZD	Kingston
220							
224.340 -		N1SGK	Dennis	NAME THAT CIRCUIT ANSWER: 2. Zener Regulator			

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FIRST CLASS

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