

# ZERO BEAT

**South  
Eastern  
Massachusetts  
Amateur  
Radio  
Association**

Published Monthly by: SEMARA, W1AEC, P.O. BOX 0007,  
54 Donald St., South Dartmouth, MA 02748

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## Meeting Highlights

Watch for the January meeting highlights in an upcoming issue of the ZeroBeat.

## News Briefs

### Brando a HAM

Actor Marlon Brando is a ham. For years it has been rumored that the academy award winner was also a licensed radio amateur, but it was not until Brando was interviewed by CNN's Larry King that the world knew for sure.

Brando said that he was an Amateur Radio operator and the thing he like most about the hobby was the anonymity that it offers. He also said that he was in the process of updating his license. The actor was very supportive of Amateur Radio but stopped short of revealing his own call sign.

Modern communications appears to be an important part of Brando's life. He told King that he sees the new international information superhighway as coming to us quickly. Brando adds that he is already a part of it through his participation in America Online, but not under his real name.

### Zoning Board Wrong

The chief of the FCC's Private Radio Bureau, Ralph Haller, has told the Hempstead, New York Board of Zoning Appeals that the town is wrong in trying to regulate an amateur's antenna system based on interference caused to nearby consumer electronic equipment. The amateur, Mark Nadel, NK2T, continues a running battle with the town.

Nadel contacted his Congressman, Peter T. King, who contacted the FCC. Haller responded with a letter to King, explaining the FCC's PRB-1 decision, then wrote

to the town - an unusual move for the Commission. Here is what Haller told the board of zoning appeals:

"It has come to our attention that the Town of Hempstead's Board of Zoning Appeals (Board) has denied Mr Hayden M. Nadel's application for a variance permitting him to maintain his amateur radio station's antenna at a height of fifty-five feet (versus the thirty feet permitted by the zoning ordinance). According (to) the text of the Board's decision ... it based its determination largely on its finding that the 'proposed and existing antenna height of fifty-five feet' was resulting in interference to the home electronic equipment of Mr Nadel's neighbors."

Haller then cites PRB-1 and what local authorities may do under its provisions. But "They may not," Haller told the Board, "base their regulation of amateur service antenna structures on the causation of interference to home electronic equipment - an area regulated exclusively by the Commission."

Haller cited the FCC's exclusive jurisdiction over interference matters and told the Board "there is no reasonable connection between requiring Mr. Nadel to reduce the height of his antenna and reducing the amount of interference to his neighbors' home electronic equipment. On the contrary, antenna height is inversely related to the strength of the radio signal that serves as a catalyst for interference.

"It is a matter of technical fact," Haller said, "that the higher an amateur antenna, the less likely it is that the radio frequency interference will appear in home electronic equipment."

### Archie Comics Fund

The ARRL Foundation has agreed to match individual and club donations to the Archie Comic fund drive up to \$10,000. About \$19,000 is needed for another reprint of the comics. Tax-deductible checks may be sent to the ARRL Educational Activities Department at HQ.

## Exam Fees Higher

Effective January 1, 1995, the FCC's maximum allowable reimbursement fee for an amateur operator license will be \$5.92, up from the current \$5.75. The ARRL VEC will charge \$5.90 to each applicant (other than applicants taking only Elements 1A or 2).

## Garage Door Trouble

Hams in Omaha, Nebraska, helped the local office of the FCC in chasing down some pesky electromagnetic interference. Owners of Sears garage door openers were able to close their doors but not to open them. The FCC said that several local amateurs who had heard about the problem assisted Commission staff in locating a new air-to-ground communication system at Offut Air Force Base, operating on a frequency too close to the door openers' frequency. The Air Force contractor agreed to find another frequency.

## Amateur Radio Conference

An educational group in England hopes to hold a conference there in July 1995 to discuss Amateur Radio-teaching techniques. The group, Science and Technology through Educational Links with Amateur Radio (STELAR), was founded by Richard Horton, G3XWH, in 1993, is affiliated with the Radio Society of Great Britain (RSGB), and claims more than 120 schools are affiliated with STELAR. For more information contact Hilary Claytonsmith, G4JKS, 115 Marshalswick Lane, St Albans, Herts, AL1 4UU, England.

## Space Briefs

### Sun's South Pole

A European space agency satellite currently flying over the sun's south pole has gathered enough information to warrant a rethink of our understanding of the sun's magnetic fields and other solar phenomena. The Ulysses probe, which is providing the first measurements taken directly above the solar poles, has been described as "a total success" by the agency.

The most surprising result of the mission has been the apparent absence of a south magnetic pole, contrary to the models predicted by scientists. The low cosmic radiation there compared with the rest of the solar surface is also of much interest to researchers. They had expected the sun to have a relatively simple magnetic field, such as that of the earth or that of a magnetized iron bar. All evidence so far has suggested that the sun has no south magnetic pole. Scientists hope that the

## Dreamer's

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passage over the sun's "Antarctic" will reveal important information about solar wind, the continuous flow of magnetic gas from the sun's surface.

The effects of solar wind on the earth include interference with radio communications and sometimes the disruption of power supplies (surges on the national grids). In space it can cause the loss of satellites and is a major source of worry to astronauts.

It is still too early to establish what impact the findings will have on our understanding of the sun and the interplanetary wind that it generates. It will take months to analyze the billions of bits of information that have already been gathered. The information gleaned by the satellite will help fill in the gaps of the understanding of how the sun works. Recently the Anik satellite had its navigation knocked out by a solar event. These satellites cost over one hundred million dollars each.

## STS-66 Mission

Science teams at the Spacelab Mission Operations Control Center in Huntsville, Alabama, monitored the activities of atmospheric instruments for the third Atmospheric Laboratory for Applications and Science (ATLAS 3) mission flown in STS-66.

Preliminary results, available for the first time during an ATLAS mission, continue to provide scientists and the crew with insights to both the investigations and the processes occurring in the atmosphere. Among the results to date is the detection of increasing amounts of Freon-22 in the stratosphere. This chemical, used as a replacement for Chlorofluorocarbons, is not as great

## Net Directory

Sun	8am	14.262	General	M-F	8pm	145.490+	Weather
Sat	8am	7.237	UFO	Tue	8pm	3.978	UFO
M-F	8am	28.375	General	Thu	8pm	147.180+	Trivia
Sun	3pm	28.470	UFO	Sat	1800G	14.300	Cst Grd
Daily	7pm	146.55	General	Please report any regularly scheduled nets to the editor!			
Thu	7pm	14.264	UFO				
Sat	7:30p	3.978	UFO				

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a threat as Chlorofluorocarbons to the ozone layer, but is still a growing source of stratospheric chlorine.

The Atmospheric Trace Molecule Spectroscopy (ATMOS) experiment is viewing sunrises and sunsets through the Earth's atmospheric limb, measuring the trace gases involved in the chemistry of the stratosphere and mesosphere. The ATMOS onboard recorder approached capacity, and observations were downlinked from the orbiter Atlantis.

The Solar Spectrum Measurement (SOLSPEC) instrument, which measures solar radiation in the ultraviolet, visible and near-infrared wavelengths, viewed the Earth during mission STS-66. Although primarily a solar instrument, SOLSPEC took advantage of the Earth-viewing position of the orbiter to record ultraviolet and visible light as it was scattered back from the atmosphere. This data will be combined with information from SOLSPEC's solar observations to determine concentrations of gases in the atmosphere.

The Shuttle Solar Backscatter Ultraviolet (SSBUV) instrument obtained measurements of nitric oxide concentrations as the instrument viewed the Earth. These observations were performed in conjunction with the MAHRSI instrument to produce a more comprehensive understanding of nitric oxide distribution in the atmosphere, which is active in the chain of chemical reactions that destroys ozone in the middle atmosphere.

The Cryogenic Infrared Spectrometers and Telescopes for the Atmosphere (CRISTA) experiment acquired very high resolution data through "oversampling," or making double measurements in specific altitudes to obtain better resolution, during its scans. CRISTA took observations in all of its operating modes, and the science team is very pleased with its performance.

### Packet Directory

144.990 N1KBT	145.090 AA1FS	145.710 KA1THM
144.990 NS1N	145.090 K1UGM	145.710 KC1KM
145.010 Fara Digi	145.090 KC1CE	145.710 N1LDY
145.010 N1CSI	145.090 KD1NU	145.730 KC1UA
145.050 WA1ZUF	145.570 N1QWW	
145.070 WQ1O	145.530 KQ1K	

### '95 SEMARA OFFICERS

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## Packet News

### Teen Packet Net

"The Wall" is an idea that came to Christine, N9RVU, while she was sitting around looking through the messages on the bulletin board and finding none that really pertained to her age group. It is a place that anyone (preferably junior high, high school, and possibly college age students) can post messages to let other kids know what is going on around the country, in their schools and communities, as well as way to meet new people in their age group.

### Recreational Sports Network

If you are interested in recreational sports and ham radio, the a Recreational Sports Network, founded three years ago, may be of interest to you.

The network has served as a source for news of recreational activities. They focus on events that provide opportunities to share enjoyable experiences with sociable, active health-conscious people of all ages and backgrounds. Activities are mostly centered on daytime outdoor recreation.

### Repeater Directory

145.150 - WA1DGW, Fall River	442.350+ N1QWW, New Bedford
145.490 - KA1WBF, Fairhaven	443.450+ K1MYL, Westport
146.700 - WA1RBT, Cranston	443.600+ NS1N, Norwell
146.655 - WA1GPO, Falmouth	443.800+ N1RFH, New Bedford
146.685 - N1OEG, Plymouth	444.250+ WA1GPO, Falmouth
147.000+ W1AEC, S. Dartmouth	444.350+ W1ACT, Fall River
147.045+ WA1AIC, Yarmouth	444.550+ WA1ZUF, Bridgewater
147.135+ ND1N, Taunton	446.325 - KA1CLX, Plymouth
147.180+ WB1FLD, Bridgewater	446.625 - NC1K, Plymouth
147.315+ N1BBT, Wareham	447.075 - N1DZD, Kingston
	448.675 - N1FPH, W Greenwch
441.400+ WG1U, Assonet	
442.200+ NY1D, Fall River	

Know of any local repeater frequencies not listed here? Send them in to the editor!

## VE EXAMS

<b>January</b>		
21:	Melrose, MA	Scott, 617-322-7654
27:	Holyoke, MA	Jim, 413-245-3228
28:	Slatersville, RI	Bob, 401-333-2129
<b>February</b>		
1:	Acton, MA	Charles, 617-562-5622
4:	Middletown, RI	Jack, 401-683-2250
5:	Shirley, MA	Tom, 508-425-6672*
6:	Cambridge, MA	Bob, 617-593-1955*
8:	Billerica, MA	Bruce, 508-851-2886
9:	Providence, RI	Judy, 401-231-9156
11:	Braintree, MA	William, 617-843-4400
11:	Brewster, MA	Henry, 508-255-2818
11:	Chicopee, MA	Jim, 413-245-3228
11:	Falmouth, MA	Geoffrey, 508-548-0969
11:	Marlborough, MA	Bill, 617-891-9079
12:	Athol, MA	John, 508-249-5905
12:	Gloucester, MA	Rick, 508-283-2278
12:	Shirley, MA	Tom, 508-425-6672*
15:	Cambridge, MA	Nick, 617-253-3776
15:	Lunenburg, MA	Tom, 508-534-9377*
18:	Melrose, MA	Scott, 617-322-7654
24:	Holyoke, MA	Jim, 413-245-3228
25:	Slatersville, RI	Bob, 401-333-2129
<b>March</b>		
1:	Acton, MA	Charles, 617-562-5622
5:	Shirley, MA	Tom, 508-425-6672*
6:	Cambridge, MA	Bob, 617-593-1955*
8:	Billerica, MA	Bruce, 508-851-2886
9:	Providence, RI	Judy, 401-231-9156
11:	Braintree, MA	William, 617-843-4400
11:	Chicopee, MA	Jim, 413-245-3228
11:	Falmouth, MA	Geoffrey, 508-548-0969
11:	Marlborough, MA	Bill, 617-891-9079

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## VE EXAMS (Continued)

12:	Gloucester, MA	Rick, 508-283-2278
15:	Lunenburg, MA	Tom, 508-534-9377*
18:	Melrose, MA	Scott, 617-322-7654
18:	Plymouth, MA	Bob, 508-747-6022*
19:	Shirley, MA	Tom, 508-425-6672*

## CALENDAR

<b>February</b>		9: Ham Fest, Framingham
2: 7:30p, SEMARA Meeting		16: MIT Flea, Cambridge
5: Computers, Venus Demilo		28-30: Dayton, OH
18: Ham Fest, Marlboro		May
<b>March</b>		4: 7:30p, SEMARA Meeting
2: 7:30p, SEMARA Meeting		12-13: Hoss Traders, NH
3-5: TAPR Annual Meeting		20: Flea, Forestdale RI
5: Computers, Taunton INN		21: MIT Flea, Cambridge
<b>April</b>		June
6: 7:30p, SEMARA Meeting		1: 7:30p, SEMARA Meeting
8: Computers, White's, Westport		18: MIT Flea, Cambridge

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