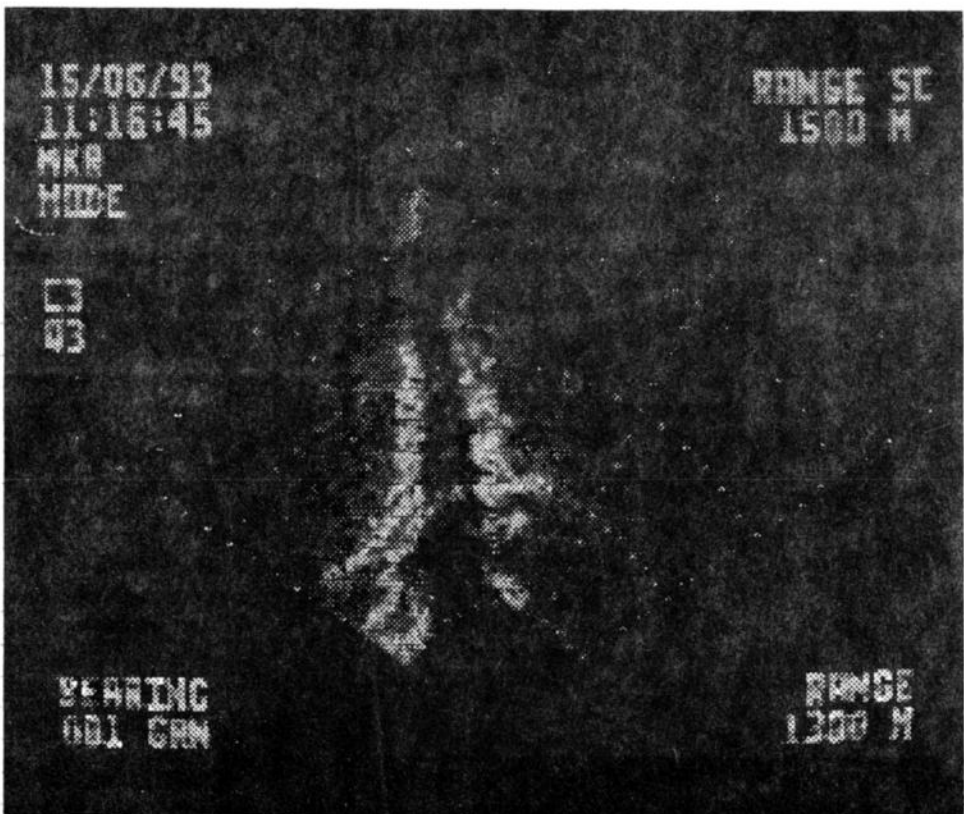




ARRL  
CLUB  
#1602

# A New Year Is Coming, What's On Screen?



Attend the December Meeting and help Chart our course for the coming year.  
Officer Elections - December UARC Meeting!

Published by the  
Utah Amateur Radio  
Club HAM  
HOTLINE-583-3002  
The MICROVOLT  
632 University Street,  
Salt Lake City, UT.  
84102

Volume XLI Issue 12, DEC, 1997

# the MICROVOLT

Periodicals

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Microvolt Midnight Copy-Editors and Coordinators of Mischief- Lon Stuart's Trolls

The Utah Amateur Radio Club was organized under its present name in 1927, although its beginnings may date back as early as 1909. In 1928, it became affiliated with the American Radio Relay League (club #1602) and is a non-profit organization under the laws of Utah. It holds a club station license with the call W7SP, a memorial call for Leonard (Zim) Zimmerman, an amateur radio pioneer in the Salt Lake City Area. The club meets each month except July and August. The meetings are held on the first Thursday of the month at 7:30 PM in the Exhibition hall located on the Salt Lake County Fairgrounds just south of Murray City Park. Club membership is open to anyone interested in amateur radio; a current license is not required. Dues are \$13 per year, including a MICROVOLT subscription. Those living at the same address as a member who has paid \$13 may obtain a membership without a Microvolt subscription for \$9. ARRL membership renewals should specify ARRL Club #1602. UARC maintains the following repeaters: 146.62 (minus) and 449.10. The repeaters are administered by the UARC repeater committee. Comments and questions may be directed to any committee member. The Lake Mountain repeater (146.76 minus offset) has Autopatch facilities on both the Orem exchange (covering Santequin to Lohi) and the Salt Lake City exchange (covering Draper to Layton). The 449.10 repeater has autopatch facilities into Salt Lake City only. Due to the volume of traffic, only mobiles should use this autopatch. Autopatch use is open to all visitors to our area and to all club members. Non members who wish to use the Autopatch are encouraged to help with and maintaining a club membership. THE MICROVOLT: The Microvolt is the official publication of the club. Deadline for submissions to the Microvolt is the 10th of each month prior to publication, except Aug. All submissions are welcome but what is printed and editing are the responsibility of the UARC board. Reprints are allowed with proper credits to the MICROVOLT, UARC, and authors.



THE (Last) DESERT EDITION OF

# THE MICROVOLT

Publication of the Utah Amateur Radio Club  
VOLUME XLI ISSUE 12 DEC, 1997

## First Things First

**This Meeting is the Election Meeting Folks!**  
The following are the Candidates, listed by Position, for the Utah Amateur Radio Club for 1998;

**President:** Thomas Scheafer

**Executive Vice President:** Ray Allen N7TEI , Bruce Smith KB7SNC

**Vice President:** Gordon Smith K7HFV

**Secretary:** Russ Smith

**Treasurer:** Chuck Johnson WA7JOS

**Microvolt Editor:** Bruce Bergen KI7OM

**Assistant Editor:** Maurine Streckenfinger KC7HOZ

**Program Chair #1:** Linda Recder N7HVF

**Program Chair #2:** Jack Warren KC7KEL

## **NEWS FLASH**

**"Put down the remote - you've seen enough football by now**



**- and come to the UARC meeting Thursday January 1st for a New Year's Day eyeball QSO"**

The January 1998 UARC meeting falls on January 1st - New Year's Day. We (The UARC Board) discussed whether or not to move the meeting 1/11/97 and decided that we would let the normal first Thursday date stand. Our turnout may be lighter than usual, but

moving the date would do the same, and we would have to arrange for the meeting place on a different day.

## **Feature Of The Month**

This month we are featuring Marvin C. Zitting W7MR. Marv has been in amateur radio since 1948. Marv got interested in amateur radio through Charles D. DeReamer W7FST who had retired from the US Army. He was running phone patches for a doctor whose son was in Japan after world war 2. This doctor appreciated it so much that he gave Charles a neon sign to hang on his antenna pole. Marv was so intrigued with this sign that he went over to Charles house to see what it was all about. Charles showed Marv his station and he was so impressed especially with the phone patching that he knew that's what he wanted to do. So after Marv got his license he ran phone patches for the US Army Personnel station. He also handled messages for missionaries. He remembered one in particular where a missionary

proposed to his sweetheart back home. Marv enjoys all facets of amateur radio. He enjoys voice and CW. When he first became a ham he built all of his equipment. Marv's station was the first station in Utah to receive the DXCC certificate for working more than 100 countries around the world. He has worked all states in less than 12 hours on 75 meters. He has received an award from ARRL for copying Morse code at 30 words per minute. He has taken first place in the sweep stakes and in many other contests. For the Utah centennial he had two stations set up for 24 hours and had over 500 contacting that week. There are 10 extra class licensed hams in his family. They have their own field day up in the mountains and their station is third in the nation for making contacts on field day. This year they were 1 contact away from first place. Marv has 8 different call signs. One of them was a special event station W200MR fore the celebration for America's 200th birthday and the others were for when he traveled to other countries so that he could make contacts while he was there. In 1955 he was the executive vice president for UARC. He has been the section manger for Utah. In 1952 he was the first president for the University Of Utah amateur radio club. Marv is a life member of ARRL, he is a member of the QCWA and he is now net control for the Utah beehive net. Marv worked for KWHO as an engineer for 9 years. He holds a commercial radio telephone license and radio telegraph license. He has his bachelors degree in physics. He now works in the training industry program. Marv, you have accomplished so much in amateur radio.

73 N7HVF Linda Reeder

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New Phone 522-4474 (Ditto

Exchange)

Or 1-435-831-4474 (Long distance)

## THE MICROVOLT

### UTAH AMATEUR RADIO EXAMINATION SCHEDULE

#### EXAMINATION PROGRAMS BY CITY

City: Brigham City                      Contact Person: Terry Wyatt  
VEC: ARRL                                  Phone: 458-2216  
Location: Box elder High School Computer Lab  
Schedule:  
Thursday April 24 7:00 PM  
Thursday June 12 7:00 PM

City: Farmington                      Contact Person: Brent Thomas, AC7H  
VEC: ARRL  
637 East 2150 South  
Bountiful, Utah 84010  
Home Ph: 298-3322 Bus. Ph: 538-3700  
Location: Davis County Jail Complex,  
800 West State St.,  
Farmington  
Service entrance  
Schedule:  
First Wednesday of Jan., Mar., July, and Sept., 7 p.m.

Contact Person: Paul Hansen, WO7N                      City: Logan  
VEC: ARRL  
1676 East 1600 North  
Logan, Utah 84321  
Home Ph: 753-4843 Bus. Ph: 752-6425  
Schedule: Second Saturday of April and October, 9:00 a.m.

Contact Person: Matthew George, AB7GM City: Ogden  
VEC: ARRL  
473 Hiland Road  
Ogden, UT 84404  
Phone: 393-9159  
Recorded exam information: 627-6064  
Location: Weber State College, Science and Technology  
Building, Rm 228  
Schedule: First Saturday of May and November, 8:00 a.m.

City: Provo                      Contact Persons: Steve and Linda Whitehead  
VEC: W5YI  
497 South 700 East  
Payson, Utah 84651  
Home Ph: 465-3983 Bus. Ph: 225-5200  
Location: Provo Campus of Utah Valley State College  
Schedule: Third Wednesday evening of each month  
Notes: Do not confuse this location with the larger Orem  
campus.

City: Salt Lake City Contact Person: Gordon Smith, K7HFV  
VEC: ARRL

632 University Street

Salt Lake City, Utah 84102

Home Ph: 582-2438 Bus. Ph: 532-3400 Ext. 8116

Location: Blue Cross/Blue Shield Cafeteria  
2455 East Parley's Way, main (west) building,  
West door

Schedule: First Saturday of Feb., APR, June, Aug. and Dec.  
20 w.p.m.: 8:00 a.m.

13 w.p.m.: 8:30 a.m. 5 w.p.m.: 9:15 a.m.

No code test needed: Any time between 8 and 10 a.m.

Notes: Preregistration is required. The owners of the building require that the door be kept locked. Those who preregister will receive the code required to get in. Preregistration also speeds the session and gets licenses on the way faster after the session. It takes only a few minutes by phone or on the air. Gordon usually monitors 146.62.

City: Salt Lake City Contact Person: Eugene (N7OVT)  
or Carol McWherter, (KC7LLW)

VEC: W5YI

536 E. Leland Avenue

Salt Lake City, Utah 84115

Home Ph: 484-6355

Location: LDS Church 2700 S. 300 East. South Salt Lake  
Pre-registration preferred. Please leave message if not at home.

Schedule: Last Tuesday of each month, 7 p.m.

Notes: This session is intended primarily for those seeking Novice, Technician, or Technician-plus licenses. Only elements 1A, 2 and 3A will be administered. Pre-registration is required.

#### THINGS TO BRING TO TEST SESSION

1. Two forms of ID (If licensed, your original and one form of ID)

Catch  
The  
Christmas  
Spirit!

## THE MICROVOLT

2. \$6.05 - Cash or Check.
3. A copy of your licensee, and or copies of your pending 610 form or certificate of credit along with the original.
4. You may bring a filled out 610 form or a form will be available at the test session.
5. Pencils or pens.
6. You may bring a calculator but you must show that it is not pre-programmed.

You may use a typewriter or lap top computer only if you make arrangements in advance.



## WEB- INFO

UARC WEB PAGE ADDRESS!

<http://www.xmission.com/~uarc>

MY NEW E-MAIL ADDRESS [COKIE@CYBERNECT.COM](mailto:COKIE@CYBERNECT.COM)  
OUR ARRL SECTION MANAGER [JIMKATPA@AOL.COM](mailto:JIMKATPA@AOL.COM)  
ARRL HOME PAGE [HTTP://WWW.ARL.ORG](http://WWW.ARL.ORG)  
CALL SIGN LOOKUP  
[HTTP://WWW.UARL.EDU/DOC/HAMULR/CALLSIGN.HTML](http://WWW.UARL.EDU/DOC/HAMULR/CALLSIGN.HTML)  
CANADIAN BACON (HAMS) [HTTP://WWW.RAC.CA](http://WWW.RAC.CA)  
DX INFO  
[HTTP://WWW.CLINETIFI/~JUKKA/WEBCLUSTER.HTML](http://WWW.CLINETIFI/~JUKKA/WEBCLUSTER.HTML)  
ELECTRONIC SWAPMEET  
[HTTP://WWW.WESTES.COM/ADS/ADS.HTML](http://WWW.WESTES.COM/ADS/ADS.HTML)  
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[HTTP://WWW.FEDWORLD.GOV](http://WWW.FEDWORLD.GOV)  
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HOUSE OF REPRESENTATIVES  
[HTTP://WWW.HOUSE.GOV](http://WWW.HOUSE.GOV)  
INTERNET/PACKET GATEWAY  
[HTTP://WWW.W2XO.PGH.PA.US](http://WWW.W2XO.PGH.PA.US)  
I.T.U. INFO [HTTP://WWW.ITU.CH](http://WWW.ITU.CH)  
LAT./LONG LOOKUP [HTTP://WWW.MIT.EDU:8001/GEO](http://WWW.MIT.EDU:8001/GEO)

## NEIGHBORHOOD ANTENNAS

HTTP://WWW.HAMWEB.COM/~SJL/STONER/ANTENNA.HT  
ML

NTIA HTTP://WWW.NTIA.DOC.GOV

SARAX

HTTP://WWW.NASA.GOV/SAREX/SAREX\_MAINPAGE.HTML

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WWW.WHOWHERE.COM

# UTAH AMATEUR RADIO CLUBS

**UARC** or Utah Amateur Radio Club meets the first Thursday of each month except the months of July and August. The meeting is held in the Theatre Building located on the Salt Lake County Fairgrounds (5200 S. and 200 E.) just south of Murray Park at 7:30 PM. There is a newcomer's meeting held prior to the main meeting at 7:00 PM.

The Davis County Amateur Radio Club meets the 2nd Saturday of each month at 10:00 AM at the Davis County Sheriff's Office, 800 West State street, Farmington UT. Members and nonmembers are welcome. Dues are \$15.00 per year and can be paid at any Club meeting. The Davis Club supports the 147.04 repeater. DAVIS ARES conducts a net each Thursday at 7:00 PM on 147.42 simplex. They also have a DAV node for packet on 145.07. For further information please contact Kent Whitney K17ST 444-1264

**OARC** or Ogden Amateur Radio Club meets the 3rd Wednesday of each month in Ogden at 7:00 PM. The meetings are held at the Red Cross building at 2955 Harrison BLVD. Members and nonmembers are invited. Dues are \$15.00 per year and can be sent to P.O. Box 3353, Ogden, Utah 84409. OARC supports the 146.90 repeater and conducts a net there Tuesdays at 7:30 PM. They also support the 146.82 repeater. The contact person is Jerry Peters WA7ADK who can be reached at 825-8798.

The VHF Society is a group dedicated to maintaining a system of repeaters in our area. Dues are \$10:00 per year and can be sent to PO Box 482 Bountiful Utah 84011-0482. The VHF Society holds a swap and traffic net for it's members each Tuesday night at 8:00 P.M. on the 146.940 repeater. For further information please contact Eldon Kaarl KB7OGM at 571-9955.

Salt Lake County ARES (Amateur Radio Emergency Services) conduct a net each Wednesday Night at 8:00 PM on the 146.88 repeater. All amateurs are welcome to participate. Their in-person meeting is held the third Wednesday of each month. For more information please contact Kirk Boman 278-9799 or Jerry Wellman Wb7ULH 969-8258

Utah Valley ARES holds their general meeting the 1st Tuesday of every month at 7:00 PM. They also conduct a net each Tuesday at 9:00 P.M. on the 147.34 repeater which is also linked to the 224.7 repeater. The contact person is Robert Earl. N7EGG at 225-8870

## THE MICROVOLT

**MARA** or Mercury Amateur Radio Association is a world wide group of Radio Amateurs dedicated to training and traffic handling for emergency operation. They conduct VHF nets each Wednesday at 9:00 PM. They also conduct health and welfare traffic net on 3.873 MHz (80 meters). The Salt Lake area is on the 146.74 repeater and their contact person is Willy Peaks N7VVL at 466-1114. The Ogden area is on the 145.49 repeater and the Provo area on the 145.37 repeater with Vince Newmeyer N7MLP at 785-5611 as their contact person.

**UPRA** (Utah Packet Radio Association) holds their general meeting on the 2nd Saturday of each month at 2:00 PM at the State Capitol Annex Building north of the State Capital. All amateurs are welcome. The purpose of the Club is to educate people who are new to packet and to coordinate packet activities. Their dues are \$15.00 per year and can be sent to PO Box 92 Riverton, UT 84065. Their contact person is Jack Christensen, KC7NX at 277-6629.

**UBET** (Utah Box Elder Thielkol) holds a net every Wednesday at 8:00 PM on the 145.43, 448.300, 145.29 repeaters. Net control changes monthly. Contact Wayne Jensen AB7TS for details about net. Club meetings are held the first Tuesday of every month at 7:00 PM in the Thielkol Rec. Council Building (old J.C. Penney's building) 62 South Main Street. (East side of street next to Brigham City sign.) Club President is Doug Nelson KC7HGL 257-1520.

**THE BRIGERLAND AMATEUR RADIO CLUB** meets the 2nd Thursday of the month (except June, July, and August) in the basement of the Sheriffs Office. They hold a net at 9:00 PM on the 147.20 repeater every Tuesday. Their contact person is Dean Stevens N7WVY at 753-2664.

**THE UTAH TCPIP Users Group Of UTUG** is an informal group that discusses TCPIP protocols and other packet information. The are geared to all levels of users, new and seasoned. They hold a weekly net Sundays at 8:00 PM on the 146.620 repeater. Their contact person is Matt Simmons KG7MH at 965-1038

The High Valley Net from Heber meets every Monday at 9:00 PM on the 147.18 repeater. Their contact person is Doug Neilson, N7PPW at 756-5927 or Joe Chenworth, KG7GY at 564-3598

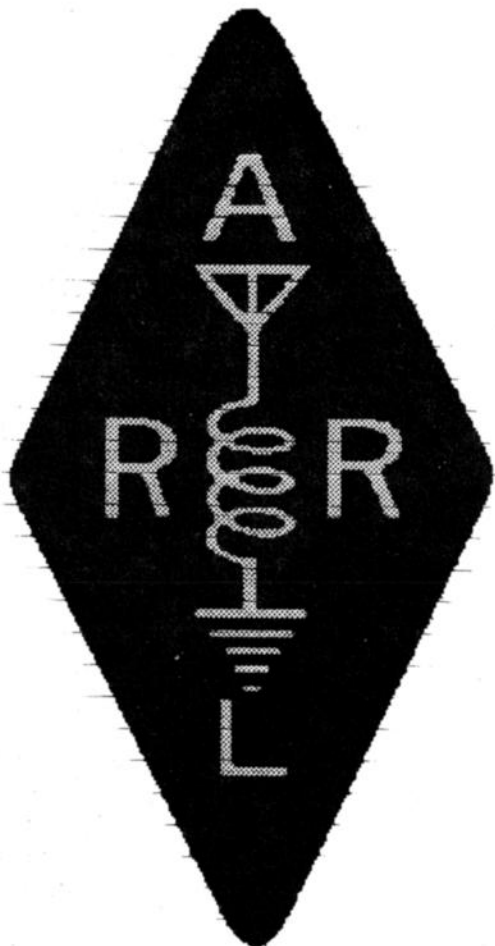
The University of Utah Radio Club is open to University Staff, alumni and students. There is a fully equipped station available 24 hours a day. Their contact persons are Marvin Match KA7TPH at 581-6085 or Clint Turner KA7OEI at 972-5541

The Salt Lake Community College Amateur Radio Club is open to anyone. They would like to welcome interested parties to join them. They meet on the South campus in room N285 on the first Saturday of the Month at 3:00 PM. Please contact Keith K17SL at 957-3247

Rocky Mountain Radio Assn. is open to all Utah hams and they support the 447.900, 448.400, 448.700 repeaters. Their net is on 447.800 and 52.525 (six meters) every Wednesday night at 8:00.

Please contact Marc Peterson (KB7YJJ) at 977-1845 for info!

**BYUARC** (Brigham Young University Amateur Radio Club) is open to all alumni, faculty, staff and students of BYU. The club maintains the 147.26+ repeater that has an Autopatch for members to use. The dues of \$15.00 covers Autopatch usage for a whole year. The club also has a shack with a variety of equipment. Members have the opportunity to provide emergency communications for the campus. Meetings are held the second Thursday of each month, and the location varies. The information line for the club is 378-COAX, or you can contact the president, Andrew Barney by email at WH6KU@byu.edu.



Amateur Radio Explorer Post #1973 is a coed post open to all young men and women ages 14-20. The post is supported by a committee of hams over age 21. The post meets on the third Wednesday of each month at 7:00 at the UVSC Provo campus, and holds a net on the 147.34+ machine on the first Wednesday of each month at 8:30 p.m. Post members provide communications for various parades, boy scout functions and participate in other ham groups. Contact person is post president Sarah Whitehead KC7KEI 465-3983, Committee Chairman Derick Wolsleger KC7KRS 465-1134 KC7KRS@ucarens.org, or Advisor Terry Gardner N7QGA 785-7517 terrygardner@juno.com.

Dec. 4 Elections.  
 Dec. 25 Christmas  
 Dec. 31 New Years Eve  
 Jan. 1 1998's First Meeting - BE THERE!

## THE MICROVOLT

The ARRL Letter Online

Volume 16, Number 43 (October 31, 1997)

Page author: elindquist@arrl.org

Page last revised 3:52 PM ET 10/31/97

ARRL Audio News from this edition is available at <http://www.arrl.org/arrlletter/audio/> for two weeks after publication.

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Editorial: Rick Lindquist, N1RL, e-mail [elindquist@arrl.org](mailto:elindquist@arrl.org).

### IN THIS EDITION:

Tauzin says "We hear you"

WRC-97 under way

Last vanity gate to open December 2

Mir okayed for school contacts

ARRL debuts 160-meter DXing book

ATVQ has new publisher

Solar update

Michael R. Vestal, W0YZS/XU6WV, SK

Bruce O. Williams, WA6IVC, SK

In Brief: This weekend on the radio; Sputnik model update; Vanity update; Ariane 502 launch a success; Orbital calendar to QRT; Youngest Extra revisited; Happy 100th birthday to W7HF! RF exposure panel; WSWSS Proceedings available; First China-North America EME QSO

### TAUZIN SAYS "WE HEAR YOU" TO AMATEURS, SCANNER FANS

Hams, scanner enthusiasts and others are breathing a tentative sigh of relief this week. Their efforts apparently have paid off to convince House Telecommunications Subcommittee Chairman W. J. "Billy" Tauzin (R-La) that HR 2369, the Wireless Privacy Enhancement Act of 1997, was flawed legislation. Tauzin's so-called "scanner bill" has been rewritten to reflect the concerns of hams, volunteer firefighters, scanner enthusiasts and others. Many meetings, phone calls and letters with Tauzin's staff followed the introduction of the original bill. At Tauzin's request, the League submitted recommendations to narrow its scope. From Washington, ARRL Legislative

and Public Affairs Manager Steve Mansfield, N1MZA, reports that most of those recommendations found their way into a committee markup of the bill, released Wednesday, October 29. While the original version of HR 2369 covered the entire Commercial Mobile Radio Service (CMRS), the current version restricts its scope to just cellular telephone and the Personal Communications Service (PCS). Mansfield tempered his optimism with caution. "It is still too early to say whether the bill in its modified form, or in any other form, will ever become law," he said. In introducing the substitute bill, Tauzin praised hams for their constructive cooperation. "The bill was never intended to prohibit the scanning of public safety frequencies or other noncommercial frequencies in which users have no expectation of privacy," he said. It was designed solely "to protect users of wireless services that pay for such services." Mansfield said the League worked with a coalition of other organizations to make sure members' voices were heard on The Hill. Changes also were recommended by scanner interests including Uniden and Tandy. Unless Congress cuts corners, the bill still has a long way to go. It must be passed by the full Commerce Committee before it goes to the floor of the House. "The ARRL will continue to work with committee staff to fine tune one of the bill's provisions that could have unintended consequences with regard to unrelated modification of equipment," Mansfield said.

In its original form, the bill had generated a good deal of controversy that boiled over into emotional letters and e-mail messages to Members of Congress. Some critics interpreted the bill as outlawing equipment that receives law enforcement, fire, EMS and other nonbroadcast services, and felt it could even prohibit listening to these transmissions. The ARRL believed it could also impede the ability of manufacturers to include expanded VHF and UHF receiving capability, something most hand-held and mobile transceivers now offer. While the League did not object to the original bill's efforts to curb cellular and PCS eavesdropping--something that's already illegal--its primary objection was that it could adversely affect the efforts of ham radio emergency volunteers, volunteer fire departments and other agencies that monitor public service frequencies using scanners. Among other things, the League pointed out to House members this month that the Electronic Communications Privacy Act (ECPA) of 1986, makes it illegal to intercept cellular, PCS, and other telephone-type communication.

One provision of the latest version calls on the FCC to consider defining the expression "capable of readily being altered" to require scanning receivers to be made in a way that effectively precludes alteration as necessary to prevent illegal use. Another calls on the FCC to consider requiring warning labels for scanning receivers that alert users to the prohibitions in federal law.

Mansfield praised Tauzin and his staff for paying attention to Amateur Radio concerns on the proposed legislation.

## THE MICROVOLT

"On the whole, it looks like Congress has listened," he said.

### WRC-97: ARTICLE S25 CONSIDERATION PROBABLY DEFERRED UNTIL 2001

Late word from the ITU's 1997 World Radiocommunication Conference in Geneva is that Article S25 of the international radio regulations might not end up on the agenda for the WRC-99 after all. Article S25 was placed on the tentative agenda for WRC-99 at WRC-95, two years ago. A working group of WRC-97 delegates compiling the agenda for WRC-99 decided on Friday, October 31, to recommend that the matter be held over until 2001 because of a long list of other items vying for inclusion on the WRC-99 agenda. The decisions as to what will and will not be included on the WRC-99 agenda will not be final until agreement is reached in the Plenary, much later on in the four-week conference. Article S25 contains the international radio regulations that are specific to the Amateur and Amateur-Satellite Services, including the Morse code requirement for operation below 30 MHz. The possible realignment of the 40-meter allocation, to resolve the conflict between amateurs and broadcasters in part of the band, tentatively has a place on the WRC-99 agenda. This issue likely will be tied to the desire of HF broadcasting for more spectrum between 4 and 10 MHz. Both issues will be on the WRC-99 agenda unless more urgent items crowd them off before the close of WRC-97. Ham radio is well represented at WRC-97, which began Monday, October 27. ARRL Technical Relations Manager Paul Rinaldo, W4RI, is a member of the US delegation. Jim Dean, VE3IQ, of the Radio Amateurs of Canada, David Wardlaw, VK3ADW, of the Wireless Institute of Australia, Keigo Komuro, JA1KAB, of the Japan Amateur Radio League, and Y. S. Park, HL1IFM, and J. G. Rhee, HL1AQQ, of the Korean Amateur Radio League, are on their nations' delegations. Each of these delegates has a strong IARU connection. IARU representatives include Larry Price, W4RA, Wojciech Nietyksza, SP5FM, and Michael Owen, VK3KI. Among many other topics, the so-called "Little LEO" issue will come before the 1800 or so WRC-97 delegates. Current US proposals do not include any plans to share amateur frequencies, but this does not prevent other delegations from bringing up plans that might adversely affect ham radio allocations. That hasn't happened so far. In another action Friday, the working group that's considering Little LEO allocations agreed to a New Zealand proposal to designate 146 to 148 MHz as "no change," and Rinaldo is optimistic that designation will hold. Little LEO advocates continue their attempts to justify additional allocations, but a recent FCC order to confirm an agreement to share existing Little LEO



allocations warned the industry not to expect additional spectrum in the future. "We had significant difficulty obtaining spectrum for Little LEO service at WRC-95," the FCC said. Rinaldo has been named chairman of a drafting group that's looking into the issue of wind profiler radar's. These systems operate around 50, 449 and 1000 MHz and have some potential for interference to Amateur Radio. No surprise new bands for wind profilers were proposed at today's first meeting, and a European proposal for 420 to 435 and 438 to 440 MHz was taken off the table. WRC-97 delegates also are being asked to consider adding the Earth Exploration Satellite service to the 430 to 440 MHz band and to upgrade the status of EES in the 1240 to 1300 MHz band.

World Radiocommunication Conferences are held every two years. WRC-97 is scheduled to wrap up on November 21

## FCC OPENS VANITY GATE 4I

Christmas will arrive a bit early for General, Technician Plus, Technician and Novice Class hams. The FCC has announced that vanity call sign program Gate 4--the last vanity gate--will open December 2, 1997, for General, Tech Plus, Technician and Novice class hams to request a vanity call sign on or after that date. The potential number of applicants from these four licensee groups is huge--well over a half million hams! Applicants may use either the electronic Forms 610V and 159 on the Web or hard-copy Form 610V and 159 -- but not both. Both versions -- plus fact sheets and answers to frequently asked questions -- are available at <http://www.fcc.gov/wtb/amateur>. The application fee is \$50, payable by check (to "FCC"), bank draft, money order or credit card. Do not send cash. The FCC gives processing priority to electronically filed Forms 610V for which the filing fee and Form 159 have been received. The FCC now requires all vanity filers to include a Form 159, which must be mailed to the FCC with your fee. It's up to applicants to make sure that their applications do not arrive before December 2, 1997. The FCC will return all applications that arrive early. All other vanity call sign gates will remain open, and Amateur Extra and Advanced class operators continue to be eligible to file for vanity call signs under those filing gates. Any call sign requested must be appropriate for the class of license you hold. This means that Technician, Tech Plus, and General class licensees may ask for a Group C (13) or D (23) call sign. Novice class licensees may only request Group D call signs. Electronic filers must mail the Form 159 Fee Remittance Advice to FCC, Amateur Vanity, PO Box 358994, Pittsburgh, PA 15251-5994. The Form 159 and the fee must be received within 10 days of electronically filing your Form 610V or your application will be dismissed. Those filing on document Forms 610V and

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159 must mail the application package containing a completed Form 610V with a copy of your license attached, Form 159 and the proper fee in a sealed envelope to FCC, Amateur Vanity, PO Box 358924, Pittsburgh, PA 15251-5924. Application packages via courier or delivered by hand must be prepared in the same way, sealed in a second, outer envelope, and addressed to Federal Communications Commission, c/o Mellon Bank, 525 William Penn Way, 27th Floor, Room 153-2713, Pittsburgh, PA 15259, ATTN: Wholesale Lockbox Shift Supervisor. This address should only be used for applications delivered by hand or courier. For general information, call the FCC's toll-free National Call Center, 888-225-5322 (CALLFCC).

## MIR HEALTHY ENOUGH FOR SCHOOL CONTACTS

The ARRL Educational Activities Department has gotten the official okay from Johnson Space Center to start scheduling school QSOs with David Wolf, KC5VPF, aboard Mir. The spacecraft's health seems to be improved now that the new computer is installed. A series of problems with Mir, including several computer failures, had put the school contacts on a back burner for the past few months.

For more information on possible Mir school contacts, get in touch with Educational Activities Department, ARRL, 225 Main St., Newington, CT 06111; tel 860-594-0267; e-mail [sarex@arrl.org](mailto:sarex@arrl.org).

Meanwhile, the current Mir crew of Wolf and Cosmonauts Anatoly Solovyev and Pavel Vinogradov remains very busy working and experimenting. Wolf reported recently that he's working up to 16 hours a day--a schedule that gives him little spare time for Amateur Radio. Wolf has been active infrequently on 145.985 MHz FM simplex, and the packet system also was active briefly. During a QSO with Wolf, Miles Mann, WF1F, asked him when he expected to be back on 2 meters. "David said he had six items on this top-priority list, and Amateur Radio was currently number 6," Mann said. The PMS 2-meter station had been turned off while the 13 KB mailbox was completely full. Mann said the crew needs up to an hour a day to read, reply and delete the daily load of packet mail just to keep the mailbox open. "At the present time, the crew's workload is just too heavy to support this," he said. The SAFEX II 70 cm repeater is still turned off. The crew is still trying to build up power reserves in the batteries of the space station. The space station is now getting power from all solar panels, except the one that was damaged by the Progress supply rocket collision in June. --SpaceNews via Miles Mann, WF1F

## ARRL DEBUTS 160-METER DXING BOOK

The ARRL has introduced DXing on the Edge--the Thrill of 160 Meters, by Jeff Briggs, K1ZM. DXing on the Edge gives an insider's view at what it takes to make it on 160 meters. The book includes lots of interesting Topband history plus an audio CD of some exotic and exciting QSOs made from prominent DX stations. Much of 160 meter history revolves around the late Stew Perry, W1BB. His QSL card remains prize wallpaper for amateurs around the world. Author Jeff Briggs, K1ZM, is a well-known DXer and contest operator. He has 270 countries confirmed on 160 meters, making him one of the leaders in the DX chase and an expert on this most challenging of amateur bands. DXing on the Edge is \$29.95 (plus shipping). Order Item No 6354. Call toll-free 888-277-5289 or see <http://www.arrl.org/catalog/6354/>.

## HARLAN TECHNOLOGIES IS NEW ATV QUARTERLY PUBLISHER

Amateur Television Quarterly has a new publisher. Harlan Technologies took over the reins of the Amateur Radio niche publication on October 17, following the departure of former publisher Henry B. Ruh, KB9FO. "We have a little catch up to do," conceded Gene Harlan, WB9MMM. He said the Summer 97 issue will be out about November 1, followed by the Fall 97 issue around December 1. "After that we expect to be back on schedule, and it will be our goal to stay on schedule!" Harlan Technologies had published CyberHam Magazine, which folded earlier this year. Its subscriber list and some departments have since been incorporated into SKIP magazine. Harlan says ATVQ is always looking for new authors. "I have my own ideas as to what it will look like and the content that will be included," Harlan said. "I hope to keep that content on the video modes of ham radio, which means that I plan on including at least some on SSTV." US subscription rates are \$18 per year (\$US20 in Canada and \$US26 elsewhere). For more information, contact Amateur Television Quarterly, Harlan Technologies, 5931 Alma Dr., Rockford, IL 61108; tel 815-398-2683; fax 815-398-2688; orders 800-557-9469; e-mail [atvq@aol.com](mailto:atvq@aol.com); <http://www.cris.com/~Gharlan>.

## SOLAR UPDATE

Solar sage Tad Cook, K7VVV, in Seattle, Washington, reports: The disturbed conditions forecast for last weekend hit quite hard. A coronal mass ejection a few days earlier caused the planetary A index to hit 25 last

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Friday, 19 on Saturday and 14 on Sunday. This caused HF havoc during the CQ Worldwide DX Contest. Last week we saw the average solar flux drop a few points and the average sunspot number decline by 10. At the same time the average flux for the previous 90 days went up by one point from 86 to 87, and the solar flux was below this average for six out of the seven days. This weekend is the ARRL CW Sweepstakes, and conditions for this domestic contest should be quite a bit better. Conditions are expected to be quiet to unsettled, with solar flux climbing from 90 to 95. Northwest Research Associates has an interesting web site devoted to space weather, including charts of 10.7 cm solar flux, effective sunspot numbers and geomagnetic indices. Check it out at <http://www.nwra.com/nwra/spawx/> Sunspot numbers for October 23 through 29 were 0, 11, 13, 14, 44, 50 and 41 with a mean of 24.7. The 10.7 cm flux was 79.7, 78.6, 81.4, 82, 84.4, 85.5 and 87.2, with a mean of 82.7, and estimated planetary A indices were 6, 25, 19, 14, 15, 13, and 10, with a mean of 14.6. Here are some projections for domestic paths for this contest weekend:

From California to the Northeast: Check 80 meters 2330-1230 UTC, 40 meters 2130-0300 UTC and 0630-1500 UTC, 20 meters 1500-2200 UTC, and possibly 15 meters around 1800-1900 UTC.

From the Southeast to California: Check 80 meters 0000-1300 UTC, 40 meters around the clock, with the strongest signals from 0130-0300 UTC and 0630-1130 UTC, and 20 meters 1530-2200 UTC.

From Ohio to Texas: Check 80 meters 2130-1400 UTC, 40 meters around the clock with the least stable conditions around 0500-0600 UTC and the strongest signals from 0000-0200 UTC and 0700-1130 UTC. Check 20 meters 1500-2130 UTC.

From Seattle to the Midwest: Check 80 meters 2300-1500 UTC, 40 meters around the clock, with strongest signals 0100-0500 UTC and 0800-1300 UTC, and 20 meters 1530-2330 UTC. 15 meters may open 1800-2130 UTC, and 10 meters might open 1900-2030 UTC.

From the Midwest to Hawaii: Check 80 meters 0330-1400 UTC, 40 meters 0200-1500 UTC, 20 meters around 1600 UTC and 1700-0000 UTC and 0130-0230 UTC, and 15 meters looks very good 1730-2330 UTC.

## MICHAEL R. VESTAL, W0YZS/XU6WV, SK

Noted VHFer and contester Mike Vestal, W0YZS/XU6WV, of Cambodia, died October 27 in Cambodia. He was 54. Vestal also had held the call signs VR2WV and SV0FE. His friend, Brett Graham, VR2BG, called Vestal "the personification of a 'real' ham." As W0YZS, Vestal earned the first WAS on 432 MHz. He also was serious about DXing, contesting and developing 160-meter antennas, Graham said. "His professional life was equally

multifaceted, and his technical knowledge was not only extensive, but based on the hands-on, soldering-iron-in-one-hand and 'scope probe-in-the-other approach," he added. Graham said he would be happy to relay condolence messages to Vestal's wife. Contact Brett Graham at [vr2bg@harts.org.hk](mailto:vr2bg@harts.org.hk).



**BRUCE O. WILLIAMS SR, WA6IVC, SK**

Former ARRL Headquarters staff member Bruce Williams, WA6IVC, of Smithville, Texas, died October 26. He was 71. Williams had been battling lung cancer and reportedly died of a blood clot. Williams began his League career in April 1985 when he joined the Technical Department and served as the Product Review editor. In August 1987 he became the ARRL Advertising Manager. He loved to construct projects and may be best known for his article "The SIMPLEceiver" that appeared in September 1986 QST. He retired from the League in July 1989 and moved to Texas. A technical writer and editor from the late 1950s until the early 1970s, Williams also served for about a year in the mid-1960s as vice president and general manager of Swan Electronics Corporation, a former ham radio manufacturer. He also had experience in the aircraft industry. ARRL Membership Services Manager Chuck Hutchinson, K8CH, used the words "witty, charming and clever" to describe Williams. "We always operated Field Day together," Hutchinson recalled. "Each year we'd try something new--be it a home-made radio, a new antenna, or a solar battery charger. Those were fun times, and Field Day has never been the same for me since Bruce moved away." Williams' wife, Charleen, survives. --Thanks to Bruce Muscolino, W6TOY, Chuck Hutchinson, K8CH, and Paul Pagel, N1FB

#### **In Brief:**

This weekend on the radio: It's time for the ARRL November Sweepstakes CW contest! Also on tap: the North American Collegiate ARC Championship, CW, which runs concurrently with the ARRL SS and uses Sweepstakes rules.

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**Sputnik model update:** The hand launching of that Sputnik 1 (PS2) model from the Russian Mir space station now is set for November 3 at 0200 UTC. A working one-third scale model of Sputnik 1 will be tossed out during a space walk by Cosmonaut Anatoly Solovyev. Cosmonaut Pavel Vinogradov will take pictures from outside the spacecraft. The Sputnik model is nearly eight inches in diameter and weighs just over six pounds. It will transmit a "beep-beep" beacon signal, and the tone will vary with the temperature inside the spacecraft (from 372 Hz at -50 C to 1213 Hz at +50 C). US Astronaut David Wolf, KC5VPF, will remain inside Mir during the space walk. According to Guy Pignolet, secretary of the Aero-Club de France, power is provided by three packs of four lithium batteries at 3.5V each. The transmission frequency will likely be 145.820 MHz, and it will be also possible to listen to 145.841 MHz. The 500 mm antennas are circularly polarized, and it will be possible to listen to PS2 in SSB or FM. "The sound will be nicer with SSB, but the Doppler may make the shift appear more complex at the beginning and at the end of the satellite's visibility," Pignolet said. Reception reports go to FR5KJ, the club station at College Reydellet. Include an SASE and two IRCs for a certificate. For more information, see <http://www.oceanes.fr/~fr5fc/sputnik.html>. --thanks to Miles Mann, WF1F, and Guy Pignolet

**Vanity update:** The FCC in Gettysburg reports it has run vanity call sign applications through October 10. The FCC granted 92 new call signs. Another 89 applications landed in the WIPS stack and have already been dealt with.

**Ariane 502 launch a success:** The Ariane 502 launch that was to have carried the Amateur Radio Phase 3D satellite into orbit is being declared a success. The Ariane 502 flight took off from the European Space Agency's facility in Korou, French Guiana, South America, October 30, and the upper stage payloads separated and deployed into a geostationary transfer orbit as planned. In August, ESA dropped Phase 3D from the Ariane 502 manifest when it became clear that AMSAT would not be able to make necessary modifications to the P3D spaceframe to handle additional stress and vibration in time to meet the launch schedule. AMSAT is hoping to fly Phase 3D aboard a future Ariane 5 launch and was anxiously awaiting the outcome of the Ariane 502 launch. The first Ariane 5 flight failed, and the launch vehicle had to be destroyed shortly after launch. --AMSAT

**Orbital calendar to QRT:** For some years now, the League has offered a monthly orbit calendar for use with the OSCARLocator. Since requests for this monthly listing have dwindled to less than a half dozen, the League plans to end this service at year's end. --Jon Bloom, KE3Z

## 10

Youngest Extra revisited: We've published reports of boys and girls of 10 and 11 years old earning their Extra class tickets. But Rebecca Rich, KB0VVT, of Raytown, Missouri, could have them all beat. According to her mom, Barbara Rich, KG0UT, Rebecca earned her Extra ticket in March 22, 1997, just a few months before her ninth birthday. In fact, the whole Rich family studied for and passed their Extra tests together, and all of their licenses were issued on the same day. Rebecca's dad is David Rich, KG0US. Rebecca has been a ham since March 1996, when she qualified for her Technician license (see QST, October 1996, p 19). Recently, Rebecca spent several hours operating in the CQ WW SSB contest at the home of Jerry Fisher, NX0I. Says her mom: "I believe that women and youth add a dimension to Amateur Radio that is needed." (Any other challengers for the title of Youngest Extra? --Ed)

Happy 100th birthday to W7HF! George Wilson, W7HF, of Aberdeen, Washington, celebrates his 100th birthday November 1, 1997. The Grays Harbor Amateur Radio Club plans to honor Wilson at its November 6 meeting. Club member Frank Volz, KA7DNK, reports that Wilson is still active on the HF bands. Wilson has been an ARRL member since 1934. --Frank Volz, KA7DNK

RF exposure panel: ARRL Lab Supervisor Ed Hare, W1RFI, will join Bob Cleveland of the FCC's Office of Engineering and Technology, and Greg Lapin, N9GL, an RF bioeffects researcher, for a panel discussion and slide presentation, "Keeping your Station Safe and Legal," Sunday, November 2, 2 PM CST, at Karger Recreation Center, 1850 Green Bay Rd, Highland Park, Illinois. The panel is free and open to all. The North Shore Radio Club is sponsoring this event. For more information, call 847-272-8347.

WSWSS Proceedings available: The Proceedings of the Western States Weak Signal Society's 1997 Technical Conference are available directly from the WSWSS for a limited time only at \$15 each postpaid (US only) from Bob Earl, KD6UIH, PO Box 332, Midway City, CA 92655-0332. Make checks payable to the Western States Weak Signal Society. Proceedings also are available from the ARRL for \$15 (plus shipping) as Item Number 6346 at <http://www.arrl.org/catalog>. Topics include: "Single Board Transverter for 5760 MHz and Phase 3D" and "Rewinding Coax Relays for 12 VDC Operation," both by Paul Wade, N1BWT. For information on mailing rates outside the US, e-mail [kd6uih@juno.com](mailto:kd6uih@juno.com).

First China-North America EME QSO: BY1QH again was active on 144 MHz EME on October 25 and worked KB8RQ for the first-ever China to North America EME contact. BY1QH also worked W5UN. The station operator

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was David, BZ1BM, who had help from Lasse, SM0KAK. -  
-thanks to SM0KAK

### The ARRL Letter

The ARRL Letter is published by the American Radio Relay League, 225 Main St., Newington, CT 06111; tel 860-594-0200; fax 860-594-0259. Rodney J. Stafford, KB6ZV, President; David Sumner, K1ZZ, Executive Vice President.



Dear A.R.R.L. Member

Remember how things looked this time last year? Things looked bleak for Amateur Radio.

For the first time ever, we faced a threat to two meters -- our most popular frequency band. Low-capacity, low-Earth orbit satellites (Little LEOs) were but one of a host of serious challenges to our radio spectrum.

Mounting a strong defense would not be easy. Sunspot numbers were at rock-bottom, giving amateurs less reason to get on the air and more reason to devote their time and money to other pursuits. While the year still had a few months to go, it was already clear that during 1996 the League was going to spend more for the protection, promotion, and advancement of Amateur Radio than it would take in.

When QST advertising drops off, we can print fewer pages. When we sell fewer ARRL publications, we can tighten our belts until sales pick up. But there's one thing we can never afford to do: We can never afford to do less than what is necessary to protect the future of Amateur Radio. In Washington, Geneva, and other places, decisions are being made that will affect us five or ten years from now. We can't wait for the sunspots to return before mounting our defense; tomorrow is too late.

Last year we knew that the agenda for the 1997 World Radiocommunication Conference (WRC-97) included

items such as the Little LEO allocations that could pose significant threats to Amateur Radio. The time to address those threats was during the national preparations for the conference, in 1996 and early 1997. The funds had to be there to do what needed doing.

So, last September I wrote to every ARRL member. I outlined the spectrum challenges we faced and asked for a voluntary contribution to the Fund for the Defense of Amateur Radio Frequencies. League members responded generously. More than 11,000 members contributed more than \$400,000 to the Fund, ensuring that the work of preparing for WRC-97 could go forward. If you were a contributor then, please allow me to thank you again for your encouragement and support. You made a difference!

Now it's a year later. WRC-97 begins in Geneva on October 27. Thanks to this support and the work that it made possible, things are looking brighter. A few sunspots are even beginning to show up (not that we're taking credit for them)!

Last year's contributions to the Fund for the Defense of Amateur Radio Frequencies meant that we could pursue an aggressive defense of your interests as the United States proposals for WRC-97 were developed. The ARRL team in Washington was expanded, and has been working hard for you. As a result, preliminary U.S. WRC-97 proposals for additional allocations for Little LEOs do not affect Amateur Radio in any way. There's still an outside chance that such a proposal might surface at WRC-97, but representatives of the ARRL and the International Amateur Radio Union (IARU) will be in Geneva to guard against any last-minute assaults.

Little LEOs aren't the only issue facing us at WRC-97. There are some proposals to make greater use of our shared bands at 430 and 1240 MHz for scientific research. Who will make sure the needs of the Amateur and Amateur-Satellite Services are kept in mind? The agenda for the 1999 conference, will be finalized at WRC-97, and may include a realignment of the 40 meter band to eliminate the overlap between amateurs and broadcasters. Who will see to it that the WRC-99 agenda gives us the best possible shot at improving our 40-meter allocation? Two questions with the same answer: the ARRL and the IARU. Thanks to the Fund for the Defense of Amateur Radio Frequencies, the money is in the bank to ensure good representation for Amateur Radio at WRC-97. But there won't be much left over -- and the story does not end with WRC-97. If the Little LEOs don't get what they want this year, they'll be back at the trough in 1999. Winning an adequate worldwide 40-meter allocation will be a difficult challenge; we face powerful government and broadcasting interests. Pressure on our microwave bands is bound to increase. No doubt there will be new

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threats surfacing at WRC-99 that we can't even imagine today.

That is why I am writing to you today, to ask you to help us replenish the Fund for the Defense of Amateur Radio Frequencies in anticipation of WRC-99. Just as preparations for WRC-97 began in 1996, our work for WRC-99 must begin early next year.

Thanks to cost-cutting, a dues increase, and some improvement in publication sales, the League's finances are in better shape today than they were a year ago. We expect to end 1997 with a small surplus instead of a large deficit. Even so, the budget for 1998 is going to be extremely tight. Once again, we're counting on your support of the Fund to ensure that Amateur Radio continues to have a strong voice in Washington and Geneva in the months to come.

Please be as generous as you can. The access to the radio spectrum that we enjoy is a priceless national and international resource. If we lose it, we lose it forever.

73,  
Sincerely,

David Sumner, K1ZZ  
Executive Vice President

P.S. So you can let others know that you supported the defense of Amateur Radio this year, we will send you an attractive and distinctive lapel pin in recognition of any contribution of \$50 or more. To recognize contributions of \$100 or more, we will also send a specially designed coffee mug. You will be proud to display them both.

Contact me at work 972-5935 or home 544-7865 or e-mail if you might be interested in any of the following:

- (2) 7 watt power supplies @ \$15.00 each.
- kenwood 850 like new @ \$1500.00.
- Kenwood 241a @ \$290.00.
- Kenwood 430 , new, @ \$450.00.
- MFJ Multimode controller , all cabling, etc. @ ??
- Radio shack 202, 2 year warranty left @ \$200.00.
- PL's small parts @ ??
- 13 element 2 meter beam @ ??
- Multi band beam and 60 foot mast @ ??
- Barker & Williamson apartment house antenna @ ??
- Kenwood dsp100 @ \$290.00.
- (2) low pass filters @ ??
- (2) Kenwood, new, phone patches @ ??
- Yeasu phone patch and speaker, new @ \$120.00.
- Mag mounts, 6" and 3" @ ??
- Yeasu ft900, like new, @ \$1400.00.
- (8) 20 amp power supplies @ \$10.00 ea.

## 12

4 desk mikes @ \$70.00 ea.  
Kenwood 742a tri-band, 45 watt, @ \$50.00.  
Oak bay lo Pass filter @ \$50.00.  
Yeasu 530 @ \$300.00.  
Yeasu sp6 external speaker @ \$100.00.  
Kenwood 15 amp line noise filter @ \$20.00.  
Kenwood modular adapter for screw on microphone @ \$25.00.  
Kenwood tm722a 5000 watt amplifier, new @ ??  
Kenwood tm733a dual band transmitter @ \$400.00.  
patch cords, all lengths @ ??  
Weller wtcpt soldering station @ ??  
(6) 20 watt solder irons @ \$1.00 ea.  
(2) 300 watt soldering irons @ ?  
Automobile shop equipment.  
color monitor.  
Hewlett Packard laser printer, books and software @ ??  
CB radios.  
Morse code key.  
small hand tools.  
Standard c228a 5 watt @ \$350.00.  
Standard 5718da dual band @ ??  
Telephone interference filters.

The items that have no price, and the ones that do, if you feel that is not a fair price, you are to make a offer. I do not know all the specs on some of this stuff, this is as I got it off the list. This equipment belongs to Mark Lund AB7GJ and he is selling all of it and may have more. Susie Squire KC7CBR might have some knowledge or more info on some of this stuff, 773-5909. I told Mark I would try to help him get rid of it as he has cancer on the brain and wants to part with it as he is not sure, nor the doctors how long he may live.

73 de Gary

### And now a new article from AntenneX

<http://www.antennex.com>

#### Stealth Antennas

As the spring progresses and the days get longer and warmer, the antenna projects start to bloom like mushrooms after a spring rain. I hope some of the antenna projects that have showed up in antenneX are among the projects going up. I need to put up an antenna myself but don't know if I am going to have the time for a while. A bunch of trees have to be trimmed back a lot in order to get a dipole up, so I may have to put up something else because the chainsaw has bit the dust. Well, I do have a choice and all that I have to do is make up my mind.

In the past, all that I had to do was string up an antenna and get it resonant at the desired frequency. That was

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before trees. Now I think I will be forced to use a DRRR or a Hairpin. Which brings me to another topic. DRRR and other magnetic field antennas.

There is a very definite need for more amateur experimentation in this area. We have the capabilities to do some very worthwhile experiments in this area. The article about the Hairpin in last month's issue and the data contained within the charts should light a fire under somebody's idea stove. An interesting experiment could emerge with beneficial fallout for all of us.

The unfortunate souls forced to inhabit areas with antenna ordinances that prohibit any of our usual antennas are in need of something of this nature. It is very frustrating for an ordinance to prohibit an amateur antenna, yet allow a CB ground plane to be put up and justify it by saying the CB is a public service available for emergency use by everyone, not by a few "special interest groups". This has happened in several places around the country. I overheard several comments about this on 20 meters some time ago. I am not blaming the CB guys. They usually end up in the same bind as the ham, no antennas either.

For the ham in this bind, the short magnetic antenna may be the answer. The use of the small diameter wire antenna, long wires made up of #30 or smaller diameter is made difficult by birds that indifferently crash into the wire, breaking it. They don't even apologize either. Other antennas, such as the C.O.D. (Cover Of Darkness) antenna that goes up and down with the sunset and sunrise are not much fun. Being caught with that antenna up can get you evicted in some cases.

I have been in the predicament where antennas were absolutely out and still managed to get on the air, but it was not a fun thing. One of the advantages of the magnetic antennas is they do not look like an antenna. One ham in California managed to pass his DRRR off as a new solar water heater design. Another made a DRRR for 160 meters and put simulated wooden timbers made of fiberglass on it to make it look like a corral for his miniature goats. It worked just fine. No one knew the difference, and it really looked like a genuine corral complete with gate. Later on, he added several more DRRR's for different bands and disguised them as small pens for other livestock.

When I lived in Dallas a few years ago, I made a 1/2 wave DRRR for 2 meters for mobile work. During testing, I brought up a repeater 40 miles away with 10 watts. Big deal, you say. Well I was inside a screen room with the door nearly completely closed and running 10 watts. Needless to say I was very surprised when this happened.

For those who do not know what a screen room is, it is a room used for testing and tuning up two-way equipment and it is rf proof from both inside and outside sources. Once you close the door, no signal gets in or out, no matter how much power you have. When I was testing this DDRR, I had the door open about 1 inch and an FM broadcast station that was in the same building with 100 kW erp could not be heard in the screen room. So when I heard the id from the repeater, I was more than a little bit amazed. I used that antenna for several weeks until it was stolen.

I am going to make another one when I get time. The results I got were very good. One of the things that characterizes this type of antenna is they are very high Q and can act as a intermod filter for your receiver. I noticed that when I was in downtown Dallas with the DDRR hooked to the Icom. I had no intermod, but the other antennas all picked up the tremendous intermod present there.

A contact with a military radio operator resulted in a very interesting fact popping up. He mentioned he was using a DDRR on board ship at that time and we got into a discussion about that antenna. The thing that interested me was when the antenna operated on military frequencies and contact was made with another DDRR, the signals were much stronger than when contact was made with a ship using the standard military 36-ft. whip or dipole cut to frequency. That is something to think about. As I have said in the past, there is a lot we need to find out about this type of antenna. If you have any information or experience with this type of antenna, pass it on.

I get a lot of letters, and try to answer them myself. Some get into the SOS (Save Our Signal) column, those that have questions. If you don't get an answer immediately, be patient and as soon as I can get to it, you will get an answer. Generally speaking, 99.9% of the letters are from pleased readers. The other .1% have some minor gripe. Perfect we ain't, but we are getting better as we get older. For having been out for as short a time as we have, I am pleased with the letters we get. The object of antennex is to educate and illuminate the world of antennas for all concerned parties with antennas.

Our contributors have helped a lot, and I hope anyone that wants to contribute will do so. There are a lot of good antennas out there and some of them are being neglected because they are not generally known about. If you are using an older design, tell the world about it. Someone else might need just that one antenna for a particular location. Been using a commercial antenna? Fine, a product test is just the thing for antennex. Tell everyone how it did or didn't work. Found a new way to match an

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antenna? Tell the world through antennex. Discovered a new way to tune up a YAGI? Pass it on via antennex. If it pertains to antennas, let the other antenna experimenters hear about it. How many of you use your computers and CAD programs to design and match your antennas? Using a commercial or public domain program? Pass along your comments and experience with it to other parties that are interested in doing things this way. Have a solution to a nagging problem? Send it in to the SOS column. Questions? Send them to the SOS column. We are waiting to hear from you. -30-

## Just fer laffs.....

Submitted by Chuck Johnson, no doubt inspired by the coming Holiday food orgy

### **New Miracle Diet**

Americans are always on the lookout for a new diet. The trouble with most diets is that you don't get enough to eat (the starvation diet), or you don't get enough variation (the liquid diet), or you go broke (the all-meat diet). Consequently, people tend to cheat on their diets, or quit after 3 days, or go right back to stuffing their faces after it is all over. Is there nothing you can do but give up and tell your friends you have a gland problem? Well, now there's the new Toddler Miracle Diet! Over the years you may have noticed that most two-year-olds are trim. Pediatricians in consultation with X-ray technicians and distraught moms have formulated this new diet. It is inexpensive, offering great variety and sufficient quantity. Before embarking on this diet, however, be sure to check with your doctor. Good luck!

### DAY ONE

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#### Breakfast:

One scrambled egg, one piece of toast with grape jelly. Eat 2 bites of egg, using your fingers; dump the rest on the floor. Take 1 bite of toast, then smear the jelly over your face and clothes.

#### Lunch:

Four crayons (any color), a handful of potato chips, and a glass of milk (3 sips only, then spill the rest).

#### Dinner:

A dry stick, two pennies and a nickel, 4 sips of flat Pepsi. Bedtime Snack: Toast piece of bread and toss it on the kitchen floor.

### DAY TWO

**Breakfast:**

Pick up stale toast from kitchen floor and eat it. Drink half bottle of vanilla extract or one vial of vegetable dye.

**Lunch:**

Half a tube of "Pulsating Pink" lipstick and a handful of Purina Dog Chow (any flavor). One ice cube, if desired.

**Afternoon Snack:**

Lick an all-day sucker until sticky, take outside, and drop in dirt. Retrieve and continue slurping until it is clean again. Then bring inside and drop on the rug.

**Dinner:**

A rock or an uncooked bean, which should be thrust up your left nostril. Pour grape Kool-Aid over mashed potatoes; eat with a spoon.

**DAY THREE****Breakfast:**

Two pancakes with plenty of syrup, eat one with fingers, rub in hair. Glass milk: drink half, stuff other pancake in glass. After breakfast, pick up yesterday's sucker from rug, lick off fuzz, and put it on the cushion of your best chair.

**Lunch:**

Three matches peanut butter and jelly sandwich. Spit several bites onto the floor. Pour glass of milk on table and slurp up.

**Dinner:**

Dish of ice cream, handful of potato chips, and some red punch.

**FINAL DAY****Breakfast:**

A quarter-tube of toothpaste (any flavor), bit of soap, an olive. Pour a glass of milk over bowl of cornflakes; add a half-cup of sugar. Once cereal is soggy, drink milk and feed cereal to dog.

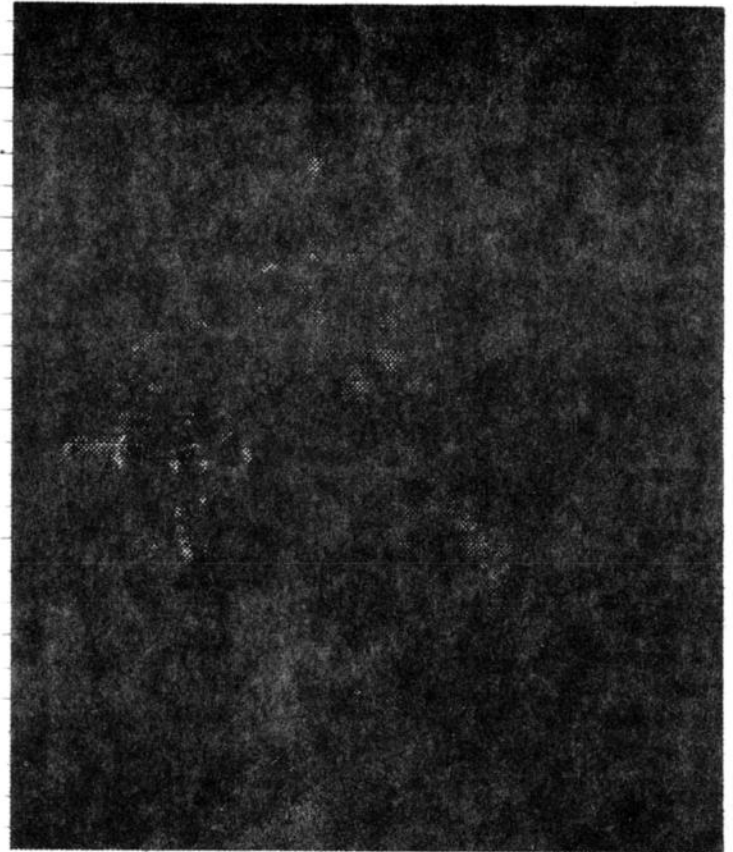
**Lunch:**

Eat crumbs off kitchen floor and dining room carpet. Find that sucker and finish eating it.

**Dinner:**

A glass of spaghetti and chocolate milk. Leave meatball on plate. One stick of mascara for dessert.

The waist is a terrible thing to mind.

**THE MICROVOLT****Well, I've Slain this Dragon!!**

By Cokie Eddy, KC7MDV

I guess it is done, my time with you has been short-lived, and I would like to thank you all for being there when I was down and when I needed your help. It has been very fun and I would do it again in a Norfolk heartbeat!

The Microvolt has been quite a challenge for me this year and last. Sometimes I wasn't even sure that I would be able to get through the day let alone the year. I suppose that I can thank my husband for all of his moral support.

I would like to thank Don Baumgartner for the abuse of his printing establishment, and Lon Stuart for loaning me his trolls. Just because I am not around, please do not forget me.

Mark, please get better. We love you.

73 de Cokie Eddy KC7MDV