

Calendar of Events

Oct 30	Sat	9:00 AM	ARES Simulated Emergency Test - Contact ARES DEC Rich Freitas KF6SZA 578-9335
Nov 3	Wed	5:30 PM 7:30 PM	No-Host Dinner at Coco's, 1501 Farmers Lane, Santa Rosa SCRA Meeting , Luther Burbank Art & Garden Center, 2050 Yulupa Avenue, Santa Rosa
Nov 5	Fri	7:30 PM	Marin ARC Meeting, Alto Clubhouse, 27 Shell Road, Mill Valley
Nov 6	Sat	10:00 AM	Red Oak Victory ARC Meeting, Point Richmond
Nov 10	Wed	6:30 PM	SCRA Board of Directors Meeting
Nov 16	Tues	7:30 PM	Hamilton Wireless Assoc., Bldg 549, Hamilton Field, Novato
Nov 17	Wed	7:00 PM Wed 7:30 PM	REDXA Meeting, Carrow's, Petaluma Valley of the Moon ARC Meeting, McDougall Hall, Sonoma Developmental Center, Glen Ellen.
Dec 1	Wed	6:30 PM	SCRA Holiday Potluck Party! Get ready for it! Luther Burbank Art & Garden Center, 2050 Yulupa Avenue, Santa Rosa

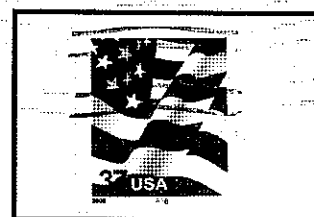
Sonoma County Radio Amateurs, Inc.

P. O. Box 116

Santa Rosa, CA 95402-0116

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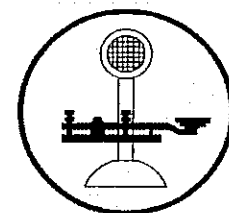
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WB6FRZ

Club Station
W6LFJ

Short Skip

newsletter of the

Sonoma County Radio Amateurs, Inc.

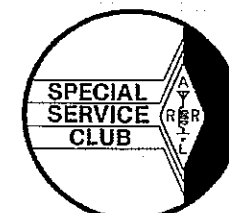
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Repeater Station
W6SON

Volume 29 Number 11

November 2004



QUA

by

Brian Torr N6IYY
SCRA President

This last weekend, October 16th and 17th, was the Pacificon Convention in San Ramon. It was a great opportunity to meet with hams from all around the West Coast and especially the Bay Area. I got a chance to talk with a few hams about their experiences with Field Day, VE exams, and QRP operation.

As usual, there were several very informative and entertaining forums, even though we didn't have electricity until halfway through the second forum on Saturday. I think the vendors selling LED flashlights did a brisker-than-usual business during the power outage! The forum on pneumatic antenna launchers was especially interesting. Don't be surprised if a few such launchers show up at Field Day next year!

Perhaps the biggest news at Pacificon was the recently-adopted revisions to Part 15 rules to specifically regulate BPL systems. It looks like amateur radio stations, as well as other licensed users of the HF spectrum, will receive some protection from interference.

Our last public service event of the season, the Waves to Wine bike tour, went off fairly well. Our repeaters performed well for this event. Several folks put in a lot of long hours, and we appreciate all their help. I wasn't able to put in the long hours since I had just returned from Hong Kong and was severely jet lagged. The rain showers Sunday morning caused a few cyclists to decide not to ride, or to not ride the longer

(continued on page 8)

Draft Bandwidth Petition & BPL Focus of ARRL Executive Committee Meeting

Meeting October 16 in Dallas, Texas, the ARRL Executive Committee (EC) devoted much of its fall session to a discussion of comments received on ARRL's draft FCC petition seeking regulation of subbands by bandwidth rather than by emission mode. The EC also authorized the filing of a Petition for Reconsideration in response to the BPL Report and Order (R&O) in ET Docket 04-37, which the FCC adopted October 14. Drafting and filing the petition must await release of the actual R&O, which should happen in a few weeks. Responding to a synopsis of the bandwidth petition and proposed rule changes posted on the ARRL Web site, several hundred League members and others in the ham radio community offered comments and suggestions.

"The Executive Committee found considerable support for the concept of the petition," said ARRL CEO David Sumner, K1ZZ, "along with constructive suggestions to reduce both the impact of the changes on current amateur operations, as well as possible unintended consequences.

Earlier this year, the EC decided to make a synopsis and explanation of the petition available to ARRL members before filing it with the FCC. At this month's meeting, the EC agreed to submit several recommended amendments to the proposed rules changes to the ARRL Board of Directors for its consideration in January. These include:

- * Retention of rules permitting automatically controlled digital stations (packet and other digital modes) in narrow HF subbands. The draft petition had proposed dropping these provisions.

- * A rule prohibiting so-called semi-automatic digital operation (automatic control in response to a

(continued on page 7)

2004 Club Officials			
President	Brian Torr	N6IYY	707 575-5871
Vice President			
Secretary			
Treasurer	Jim Lee	KE6VGV	415 892-0317
Director	Randy Black	KE6VMZ	707 546-0723
Director	Greg Gordon	AC6VJ	707 523-7077
Past President	Bill Hillendahl	KH6GJV	707 544-4944
Activities Chairman			
Public Service Chairman			
Repeater Chairman	Greg Gordon	AC6VJ	707 523-7077

Short Skip & Web Staff			
Editor	Bill Hillendahl	KH6GJV	707 544-4944
Hank's Swap Shop	Jeff Basham	KK6JAB	707 542-3860
Web Master	Jeff Basham	KK6JAB	707 542-3860

Contacts			
Antenna Ordinance/Legal	Lee Dibble	KE6EAQ	707 544-1675
Public Relations	Bill McCall	W6WDM	707 538-2844
Raffles	Karl Johnston	K6QMT	
Refreshments	Ted DeCroff	KB6PTA	707 542-4008
Volunteer Exam Liaison			
ARRL DXCC Mgr	Chuck Ternes	N6OJ	707 763-2528

SCRA Hotline	707 579-9608
SCRA E-Mail	scra@sonomacountyradioamateurs.com
SCRA Web Site	http://www.sonomacountyradioamateurs.com

Tuesday Night Net

Check in to the SCRA net each **Tuesday** evening on the **146.985-(PL 88.5)** repeater at **7:00 PM**. Announcements are made of upcoming SCRA and other amateur radio activities in the area and what is listed in Hank's Swap Shop. You will also hear the weekly *Amateur Radio Newsline* broadcast.

Short Skip Advertising Rates	
Business Cards	\$ 12
1 st Quarter Column	\$ 13
Each Addn'l Quarter Column	\$ 4
Full page (one side)	\$ 35
Pre-printed inserts (each)	\$ 35
Guaranteed circulation of 150 per month!	
For more information, contact the Editor.	

HUNGRY BEFORE THE MEETING?

JOIN US FOR DINNER! We meet at Coco's restaurant, 1501 Farmers Lane (corner of Farmers & Hwy 12), Santa Rosa. People start showing up at 5:30 PM. No RSVP is required! See you there! (Except December!)

NEXT MEETING

November 3rd
7:30 PM

Program:

Boat Anchors
&
Elections

(see article)

CLUB MEETINGS

The club normally meets the first Wednesday of each month. This month's meeting will be at:

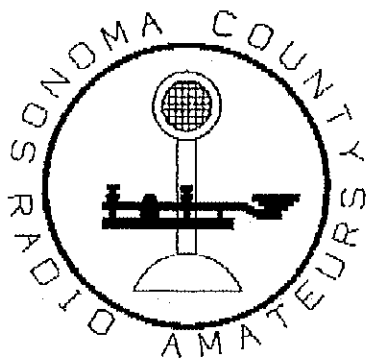
Luther Burbank Art
& Garden Center
2050 Yulupa Avenue
Santa Rosa, CA

The meeting starts at 7:30 PM

ALL ARE WELCOME!

Please join us at our next meeting. Anyone interested in Amateur Radio may be eligible for membership. A membership application is included in this newsletter.

For more information, contact any SCRA officer, director or member.



CONTEST CORNER

by Kevin Alt, K6BSG

Hello testers. Big hitters nearly every weekend this month. ARRL CW and Phone Sweepstakes along with CQWW CW contest top the list. Good luck to all participants! Happy DX'ing.

6-8 Nov - ARRL November Sweepstakes - CW, 160-10 meters.
See: <http://www.arrl.org/contests/rules/2004/novss.html>.

6-8 Nov - North American Collegiate ARC Championship - CW (held coincident with Sweepstakes).
See: www.collegiatechampionship.org.

6-7 Nov - IPA Contest - CW (6 Nov); Phone (7 Nov), 80-10 meters. See: www.ipa-rc.de.

6-7 Nov - Ukrainian DX Contest - CW/SSB/RTTY, 160-10 meters. See: www.ucc.zp.ua.

6-7 Nov - Radio Club of America QSO Party,

CHARLES J. TARR
Attorney at Law
W6VAG
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Sonoma County Radio Amateurs, Inc.

Membership Application

New [] Renewal []

Please Print Clearly

Name _____ Call Sign _____ License Class _____ Date _____

Address _____ Hm Phone _____ Wk Phone _____

City/State _____ Zip _____ E-Mail _____

ARRL Member? [] Yes [] No

Dues & Fees: (SCRA dues year is from 3/1 to 2/28)

Individual/Associate Member \$ 24 (\$6.00/qtr)

Family Membership \$ 36 (\$9.00/qtr)

Under 18 Membership \$ 12 (\$3.00/qtr)

Badge \$ 7

Payment Calculations: Make checks payable to SCRA

Dues - Full Year (3/1 to 2/28) \$ _____

Dues - Prorated _____ Qtrs. X \$ _____/qtr \$ _____

Badge \$ _____

Other - \$ _____

Donation \$ _____

Total \$ _____

Badge Information

Call Sign _____

First Name _____

City _____

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SSB/AM, 80 and 20 meters. See: www.radio-club-of-america.org.

7 Nov - DARC 10-Meter Digital "Corona" - RTTY/AMTOR/PACTOR/PSK31/Clover.
See: www.darc.de/referate/dx/cqdlcont/fgdcc.htm.

7 Nov - High Speed Club CW Contest, 80-10 meters.
See: www.dl3bzz.de/.

13-14 Nov - Japan International DX Contest - Phone, 80-10 meters. See: <http://jidx.org/jidxrule-e.html>.

13-14 Nov - 50th Anniversary European DX Contest (WAEDC) - RTTY, 80-10 meters. See: <http://www.darc.de/referate/dx/fedcw.htm>.

13-14 Nov - OK/OM DX Contest - CW, 160-10-meters. See: <http://okomdx.radioamater.cz>.

20-21 Nov - ARRL November Sweepstakes - Phone, 160-10 meters. See: <http://www.arrl.org/contests/rules/2004/novss.html>.

20-21 Nov - North American Collegiate ARC Championship - Phone (held coincident with Sweepstakes).
See: www.collegiatechampionship.org.

20-21 Nov - LZ DX Contest - CW/SSB, 80-10 meters. See: www.qsl.net/lz1fw/contest.

20-21 Nov - RSGB 1.8MHz Contest - CW. See: www.rsghfcc.org.

27-28 Nov - CQ WW DX Contest - CW, 160-10 meters. See: <http://cqww.com/>.

QUA (from page 1)

routes, but the cyclists I met on the 100 miles route seemed nonetheless to be in good spirits.

At our last board meeting, we discussed events which combined socializing and operating. Several years ago, there were a few members that planned camping trips to Sugarloaf or Casini's Campground and did some operating from their campers. One member, Don, WA6ACX, got on the radio in his camper, heard a guy from back east calling CQ, answered him, complementing the other ham on his strong signal. It should have been strong; his QTH was on the other side of the campground! Others at the SCRA campsite claimed that Don was going to go for a WAC (Worked All Campsites) award!

If you would be interested in such outings, or have suggestions for other social/operating events, call me or drop me an e-mail.

I want to remind you that elections for new club officers will be held this November. Jim, KE6VGV, has volunteered to call members soliciting nominations. Please give consideration to running for a board position.

And be sure to pencil in Wednesday, December 1, as the date for our traditional Christmas Dinner Party. As we did last year, the club will supply the turkey with stuffing and ham, and you provide a pot-luck dish (vegetables, side dish, or dessert). We will try to keep the price the same as last year, \$7.50, but this is yet to be confirmed. There were so many enticing desserts last year, I'm going to be sure to get bigger dessert plates!

73, Brian, N6IYY

ARES (from page 4)

protection. Lightning doesn't like to go around corners or through loops in the wire, which is why the grounding conductor needs to run as straight as possible.

If the building or structure has no grounding means, terminate the grounding conductor to any available grounding electrodes. Otherwise, connect the grounding conductor to the nearest accessible location of one of the following:

- The building or structure grounding electrode system.
- The grounded interior metal water piping system, within 5 feet of its point of entrance.

- Accessible bonding means such as 6 inches of 6 AWG copper connected to the service equipment or raceway.
- The metallic service raceway.
- The service equipment enclosure.
- The grounding electrode conductor or the grounding electrode conductor metal enclosures.

Bond the electrode for the equipment to the building's power grounding electrode system with a conductor not smaller than 6 AWG copper or equivalent. The point of this is to prevent flashover between the electrodes by equalizing the potential with a bonding jumper. Don't assume the earth can be your bonding jumper. That copper jumper's resistance will be negligible, while the earth will have a resistance of millions or billions of ohms, even on a wet day.

Correctly implementing the requirements of Art. 810 is fairly easy if you remember the three concepts it addresses. First, this is very low-voltage wiring – keep it away from power wiring. Second, secure the equipment away from power wiring to prevent the chance of accidental contact. These first two concepts are important because so many people have died from accidental contact between radio/television equipment and power wiring.

Third, bond all electrodes together and to the common power electrode. This prevents flashover. Electricity is trying to get back to the source, which is why usable electrical circuits are possible. If the path you provide is too high in resistance, electricity will find another – possibly lethal – way back to the source.

ARRL (from page 7)

Sumner emphasized that the recommendations address major issues raised to date but were not necessarily the last word on the draft petition. The ARRL's bandwidth proposals take into account the League's prior "Novice refarming" petition to expand some HF phone bands--included in the "omnibus" FCC Notice of Proposed Rule Making in WT Docket 04-140.

The EC also authorized ARRL General Counsel Chris Imlay, W3KD, to "prepare to pursue other available remedies as to procedural and substantive defects" in the BPL proceeding.

From ARRL

NOVEMBER PROGRAM

Boat Anchor Night

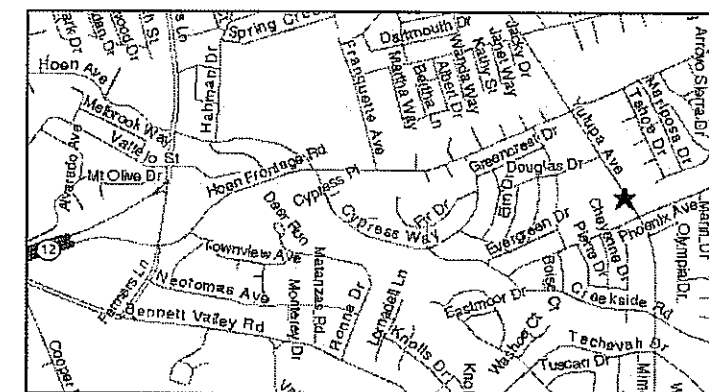
&

Election of Officers & Directors

The program for our November meeting will be Boat Anchor Night. If you have some old ham radio gear, bring it and tell us a little bit about it. And the bigger and heavier the better. Every old rig has a story to be told about it. Hope to see you (and your boat anchors) there!

Also on the agenda is the election of officers and directors for 2005. If you have been a member for the last twelve months, you can run for office. What you get out of any organization is determined by how much you put in. How about helping out keeping SCRA the premier club in the area. Contact Jim Lee KE6VGV (phone on page 2) if you want to help out.

Unfortunately, Lori Bennett-Tentrick was not able to join us at the October meeting due to illness. Lori sent her apologies and promised to reschedule her geocaching presentation early next year. As a substitute, Bill Hillendahl KH6GJV presented a photo tour of ARRL headquarters in Newington, CT. It was interesting seeing the ARRL staff at work and the different parts of the organization. Seeing the W1AW station was quite a treat.

**MEETING LOCATION**

Luther Burbank Art & Garden, 2050 Yulupa Ave, Santa Rosa (Bennett Valley)

HOLIDAY DINNER

Can you believe how time has flown this year? We are already planning the annual SCRA Holiday Dinner. Like last year's well attended party, this year we will have a pot luck with the club supplying the main course. Please be sure to mark **Wednesday, December 1st, 6:30 PM** on your calendar. We will have more details for you at the meetings and in *Short Skip*.

ALASKA!

Have you thought about making a cruise to Alaska? Bill KH6GJV is putting together a cruise for July 2005 on the luxurious Holland America line departing Vancouver BC on July 17, 2005 for Anchorage, AK. The seven day cruise will head north through Ketchikan, Juneau, Skagway, Glacier Bay and on to Seward/Anchorage. Pre and post cruise tours of Vancouver, Victoria and Denali are also available.

Interested? Contact Bill for more details. 707 544-4944 or kh6gjbv@arrrl.net (This is not an SCRA or ARRL sponsored event.)

Are you a budding author? Write an article for *Short Skip* on a Ham radio-related subject, technical or non-technical. E-mail the article to kh6gjbv@arrrl.net. We'd love to see YOU in print!



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ARES Comm Log

by Rich Freitas KF6SZA
Sonoma County District
Emergency Coordinator

On Solid Ground

This column usually deals with Emergency Communications and the preparedness for various types of disaster events. Occasionally, I've discussed some aspect of personal safety that I feel is applicable to your immediate family. Now, maybe it's time to bring safety a little closer to home and address our individual equipment installations. One of the most often-neglected issues is that of proper grounding of antennas. Whether it's professional transmitting equipment or ham radio, grounding is the key to a safe system.

If you install an antenna, whether it's a VHF/UHF television antenna, a satellite dish antenna, an AM/FM broadcast radio antenna, or an amateur radio antenna, you must follow the requirements of Art. 810 of the National Electrical Code. Keep in mind that Art. 810 addresses only those issues specific to this kind of equipment. You must still comply with other sections of the NEC for additional connections (i.e. power per requirements of Chapters 1 through 4, wiring for audio signal processing, amplification, and reproduction equipment per Art. 640, and coaxial cable installation per Art. 820).

You must securely support outdoor antennas and lead-in conductors. Secure the lead-in conductors to the antenna; don't attach lead-in conductors to the electric service mast. Avoid contact with conductors of other systems. The NEC Handbook says, "One of the leading causes of electrical shock and electrocution, according to statistical reports, is the accidental contact of radio, television, and amateur radio transmitting and receiving antennas and equipment with light or power conductors. Extreme caution should therefore be exercised during this type of installation, and periodic visual inspections should be conducted thereafter."

Outdoor antennas and lead-in conductors must not cross over open conductors of electric light or power circuits. Keep them well away from all such circuits to avoid the possibility of accidental contact. If you can't avoid proximity to open electric light or power service conductors of less than 250V between conductors, provide a clearance of at least 2 feet

between them. Where practical, install antenna conductors so they don't cross under open electric light or power conductors. Make sure any splices are mechanically secure through the use of approved splicing devices or by other means that won't weaken the conductors.

Outdoor antennas must be strong enough to withstand ice and wind loading conditions and they must be located well away from power lines to avoid accidental contact.

Outdoors. Separate underground antenna lead-in conductors at least 12 inches from power or Class 1 conductors. Separation isn't required if Class 1 conductors or power conductors are contained in a raceway. There are no burial depth requirements for antenna lead-in wires.

Indoors. Separate indoor antenna and lead-in conductors by at least 2 inches from conductors of any electric, power, or Class 1 circuit conductors. However, this doesn't apply to installations in which the lead-in conductors or the electric light, power, or Class 1 circuit conductors are installed in a raceway, metallic or nonmetallic sheath or UF cable.

Enclosures. Indoor antenna lead-in conductors can be located in the same enclosure with conductors of other wiring systems where separated by an effective, permanently installed barrier.

You must provide each conductor of a lead-in from an outdoor antenna with a listed antenna discharge unit (ground block). If you put a discharge unit inside the building, place it nearest the point of entrance – but not near combustible material. You can also place it outside the building, thus eliminating any potential problems stemming from locations inside the building. Grounding conductors must be copper or another corrosion-resistant conductive material (stranded or solid), but insulation isn't required. You can run the grounding conductors inside or outside the building. If the grounding conductor is made of copper, it must not be smaller than 10 AWG.

You must securely fasten these conductors in place and provide protection from physical damage as needed. Where the grounding conductor is installed in a metal raceway, bond each end of the raceway to the grounding conductor or the same terminal or electrode to which the grounding conductor is connected. Run the grounding conductor to the grounding electrode in as straight a line as practical – this improves lightning

(continued on page 8)

- Sonoma County Radio Amateurs, Inc.
Membership Meeting, October 6, 2004
MINUTES
- Call to Order, Verification of Quorum - The meeting was called to order by President Brian Torr, N6IY, at 7:30 pm at the Luther Burbank Arts and Garden Center. There were 20 people present.
 - Introductions
 - Officers & Directors - The club officers and directors introduced themselves.
 - Guest Speaker - Bill Hillendahl, KH6GJV, gave a synopsis of tour of the ARRL Headquarters
 - Visitors - None
 - New Calls and Upgrades - None
 - Approval of Minutes - It was moved and seconded by John, KE5RI, and Dave, W6IBC, that the minutes as printed in Short Skip be approved after correction of John's call sign. The motion passed.
 - Officer and Director Reports
 - President - Brian, N6IY, had nothing to report
 - Vice President - Position open.
 - Secretary - Position open.
 - Treasurer - Jim, KE6VGV, reported on the account balances.
 - Directors -
 - Randy, KE6VMZ, had nothing to report
 - Gregory, AC6VJ, had nothing to report
 - Past President - KH6GJV, had nothing to report
 - Committee Reports
 - ARES - Rich, KF6SZA, reported on the Face-to-Face meeting at the Blood Bank of the Redwoods, the SET to be held on 30 October, and EMSA drill on November 18.
 - Mobile Comm Van - Dave, W6IBC, has delivered the registration to John, WB6FRZ
 - Activities Committee - Bill, KH6GJV, reported on an Alaskan cruise he is planning for next July. Brian, N6IY, reported on the plans for the Christmas Dinner.
 - Newsletter Editor - Bill, KH6GJV, had nothing to report.
 - Public Service - No report
 - Repeater Committee -
 - Status of repeaters - John Felton, KE5RI, gave an update on the status of the repeaters
 - Net Control Volunteers - John, KE5RI, volunteered to run the Tuesday night net on one evening.
 - Unfinished Business - None
 - New Business -
 - Elections will be held in November. If practical, job descriptions will be sent to members via e-mail reflector.
 - Member Biography - None
 - Show & Tell - John, KE5RI, demonstrated what happens to light bulbs during a fire, such as those caused by the Geysers Fire, and had some early transistors to display.
 - Recess - There was a break from 8:10 pm to 8:30 pm
 - Program - Bill, KH6GJV, narrated a slide show of his trip to ARRL Headquarters.
 - Raffles - None
 - Announcements -
 - Elections will be held in November
 - SCRA Board of Director's meeting will be 6:30 pm, October 13, at Marie Callendar's.
 - Adjournment - The meeting was adjourned at 9:50 pm.

- Sonoma County Radio Amateurs, Inc.
Board of Directors Meeting, October 13, 2004
MINUTES
- Board Members Present: Brian Torr, N6IY; Jim Lee, KE6VGV; Randy Black, KE6VMZ; Gregory Gordon, AC6VJ; Bill Hillendahl, KH6GJV
Guests Present: Rich Freitas, KF6SZA
- Call to Order, Verification of Quorum, Introductions. The meeting was called to order by President Brian Torr, N6IY, at 6:49pm. The meeting was held at Marie Callendar's, 2460 Mendocino Avenue, Santa Rosa. A quorum was present in that five of the seven voting board members were present.
 - Approval of Minutes - Jim, KE6VGV, moved that the minutes of the 9/8/2004 board meeting be approved. The motion passed.
 - Officer and Director Reports
 - President - Brian, N6IY, had nothing to report

- Vice President - Position Open
- Secretary - Position Open
- Treasurer - Jim Lee, KE6VGV reported that there have been no changes to the account balances. A motion that the liability insurance premium be paid was made and approved.
- Directors
 - Randy, KE6VMZ had nothing to report
 - Gregory, AC6VJ was not present
 - Past President - Bill, KH6GJV had nothing to report
- Committee Reports
 - ARES - Rich, KF6SZA, reported that a SET is scheduled for Saturday, October 30.
 - Mobile Comm Van - Waiting to get the Toaster painted
 - Activities Committee -
 - Several possible social/operating activities were discussed
 - Newsletter - Bill, KH6GJV, reported that he is trying to reduce the size of the .pdf version of the newsletter.
 - Public Service -
 - The Waves to Wine event was discussed
 - VE Liaison - The board moved and approved that Brian, N6IY be appointed the new VE Liaison.
 - Repeater Committee - Gregory, AC6VJ
 - Net Control volunteers - 11/2 - AC6VJ; 11/9 - KH6GJV; 11/16 - KE6VMZ; 11/23 - N6IY; 11/30 - Open. Brian, N6IY, will send out a request on the e-mail reflector asking for volunteers.
 - Status of the repeaters - Greg reported on the status of the club's repeaters.
 - SCRA vs NARCC Update - Pat Coyle, KG6JSL, is our new attorney of record.
- Unfinished Business - None
- New Business -
 - Elections - Jim, KE6VGV, volunteered to contact prospective candidates for board positions.
 - Christmas Dinner will be similar to last year.
 - Brian, N6IY, will ask Jeff, KK6JAB, to update the net script
 - A 15m beam is being donated to the club by Greg, WB6UHH
 - Need to ask for volunteers to run the raffles
- Future Programs
 - November - We will have a "Boatanchor Night" for the November meeting
- Adjournment - The meeting was adjourned at 8:54 pm

EVERYBODY'S LOOKING FOR LOVE...
Two antennas meet on a roof, fall in love and get married. The ceremony wasn't much, but the reception was excellent.

ARRL (from page 1)
communication initiated by a live operator) on frequencies below 28 MHz where phone is permitted. This addressed a concern that "robot" digital stations might take over the phone bands.

* A segment for 3 kHz bandwidth (no phone) emissions at 10.135-10.150 MHz to accommodate existing and planned digital operations.

* Deletion of the word "continuous" from the description of test transmissions authorized on most frequencies above 51 MHz.

* Simplification of proposed changes to 97.309 to clarify that FCC-licensed amateur stations may use any published digital code as long as other rules are observed.

(continued on page 8)

HSC Web Specials!

The items below can be found in the "Specials" area of our on-line shopping pages at www.halted.com...check them out and use our secure site to place your order for the holidays!

Fujitsu FPG-310 Color Pen Plotter GRIB (IEEE-488) interface Boxed, w/ manual, cord, 90-day warranty HSC# 19131	Computer Power Supply, ATX, 145W HSC# 18350	\$9.95
Rechargeable 12VDC Battery 40 AH, lead/acid, Yuasa NPX-150R HSC# 18917	Network card, ISA bus, 10-Base T HSC# 18943	\$4.95
Server Cabinet, ATX rack mount, with Power Supply, White color HSC# 80541 New Price!	Computer Speakers, powered HSC# 18662	\$9.95
Battery charger, NIMH HSC# 19151	Game-pad, Microsoft "Sidewinder" HSC# 80486	\$12.50
SCSI Controller, Initio, PCI Bus HSC# 18218 New Price!	Compact AC Inverter for the car, 100W HSC# 19021 New Price!	\$14.95
SCSI Controller, Adaptec 1505, ISA Bus HSC# 17995 New Price!	Motherboard, 486DX4 AT HSC# 18529 New Price!	\$9.95
Mouse, 2-button HSC# 18731	Motherboard, Baby AT, 486VLB HSC# 19003	\$9.95
Mouse, w/ numeric keypad HSC# 80539	Multimeter, analog, VOM HSC# 18260	\$9.95
Scrolling mouse, translucent body HSC# 18829	Multimeter, DMM, with transistor check HSC# 80370	\$14.95
Computer Power Supply, ATX 200W, "Mini-Tower"-style HSC# 18665 New Price!	Multimeter, DMM, tilt-up display, nice! HSC# 80504	\$39.95
	Computer Joystick, "FX2000" HSC# 18772 New Price!	\$3.00
	Tower Chassis, 7-Bay "RAID" HSC# 80544	\$42.50

Disk Drive Deals!

- Seagate ST15150N 4.3 GB "Barracuda" SCSI
7,200 RPM, 8,000 ms avg. seek time
21 Hds, 11 Disks, 3,711 Cyl.
Standard 50-pin SCSI
3.5" size, half-height (1.5" tall)
Refurb, 90-day warranty
HSC# 18412 \$32.50
- Seagate ST1917WC, Ultra-
SCSI Wide ASAS
Formatted capacity: 9.1GB
Spindle speed: 7200 RPM
3.5" size, half-height (1.5" tall)
80-124 mb/s/sec internal transfer rate
Average Access (read/write): 9.7/10.7 ms
HSC# 18753 \$39.95

Special: buy the drive & get a 50-pin (HSCA23700) or 68-pin (HSCA23720) Adapter for \$10.00!
Normally a \$20 - 30 value!

PCMCIA Goodies!

- EPSON Ethernet PCMCIA interface card
Both 10Base2 and 10BaseT cables included!
Compatible with notebooks/PCs with Type II slots
Hot card insertion and removal - no power down
No jumpers or switches - Two LED status lights
New, boxed, diskette & manual, 90-day warranty
HSC# 19125 \$9.95
- Intel PRO/100 PCMCIA Network Adaptor Card
MBLA1800 LAN card supports 10BaseT/100BaseTX
For PC Card Type II sockets, 200B packet buffer
Full duplex support (10Mbps networks only)
Ethernet Specs: IEEE 802.3 & 802.3u spec
With RJ45 cable, OEM packed, 90-day warranty
HSC# 19190 \$39.50
- Epson/Adaptec APM4608 PCMCIA SCSI Card
Up to 2 MB/sec PC Card bus rate
New, OEM pack with DB25 cable, 90-day warranty
HSC# 19160 \$49.50

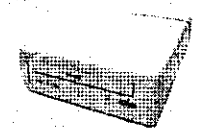
VHS Video To Go!



- "Videotronics" Model No. VHS-105 player/Jack
- Dual power option - 110VAC or 12VDC!
- Perfect for entertaining the kids in the vent
- Many other uses: home, business, camping.
- Standard NTSC VHS format, full front-panel controls, push-button buttons with LED's
- Remote control sensor on front panel - remote NOT included... may work with generic remotes?
- Re-used from working service, 90-day HSC warranty

HSC# 19048 \$19.95!

External CD-RW!



- Hewlett-Packard Model 7200 Series CD-RW
- Use just like a floppy! Shares printer port
- Drag & drop up to 650MB on a single CD!
- 2X write on CD-RW, up to 6X read on CD-R
- 1X RW 150KB/sec, 2X RW 300KB/sec
- 6X Read: 900KB/sec - drivers avail. at HP website
- EIDE (ATAPI) interface w/MMC front tray load
- 74 min. on 120mm disk, 21 min. with 80mm disk
- Power supply not included (pinout provided)
- Refurbished, 90-day HSC warranty

HSC# 19036 \$49.50

VHS for even less!



- Magnavox Model No. VHS100ATG1 video player
- Standard "I" type connectors for inline connection
- Four panel switch selects Ch. 3 or Ch. 4 output
- HCA jacks for line level video/audio connect
- Pulled from working service Units have slight markings from removed infrared sensor element covering front panel infrared detector. Remote NOT included
- For 110VAC, 60Hz operation
- Removed from working service, 90-day HSC warranty

HSC# 19152 \$17.50!

Lab Bench Supply!

- Model No. AEEC-350, 0-50VDC @3 Amp
- 110VAC, 60Hz - 150VA - small footprint!
- Dual digital meters for voltage and current
- Short-circuit protected, grounded - a cord
- New, IEC power cord, manual, 90-day warranty

HSC# 80606 \$139.00

Variable Transformers!

- One of the most useful instruments on your bench!
- Always wanted one, but they were too expensive?
- Two sizes to choose from, now they're affordable!
- Both new in box, made in China
- Model AEEC-500VR
- 0 - 120 VAC output, 500 VA
- Measures 6.5" x 9" x 7" tall
- Features meter, illuminated switch, line cord, fuse

HSC# 80474 \$45.00

HSC# 80461 \$95.00

EASY NETWORK!

Multi-PC Web Access...
Save Money!
Up to 4 PC's on one phone line!

- Perfect for home/small businesses
- Share printers, send/fax, backup files
- Proxy server for multi-PC internet access!
- Only one phone line needed for ISP connection
- Includes 4-port hub/56K modem & 1 network card
- If you want more than two PC's networked, you will need more network cards (HSC# 18403 \$4.95)
- 50 ft network cable, driver/installation manual CD
- OEM package, new, 90-day warranty

HSC# 80599 \$29.95

- or you can just buy the modem/hub-card!
- Comes with installation software CD
- You can connect your own 10-BaseT network PC's (up to three) to its hub and save!
- OEM package, new, 90-day warranty

HSC# 18942 \$17.50

Solder Pots!

- Finally... we found a source for solder pots! New, 90-day HSC warranty, very handy for the workbench!
- AEEC-10P - handy compact desktop unit
- 110VAC, 110 Watts - perfect for small jobs
- Adjustable temp. levels - 300 to 430 deg. C
- Bath dimensions: 30mm dia x 30mm deep

HSC# 80610 \$32.00

HSC Electronic Supply

Toll Free (Orders Only) 1-800-4 HALTED (1-800-442-5833)

World Wide Web: <http://www.halted.com>

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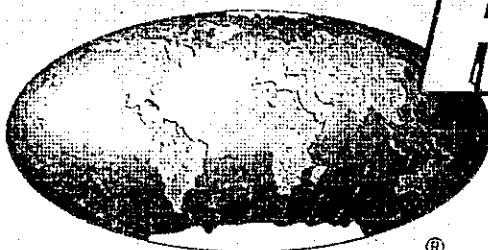
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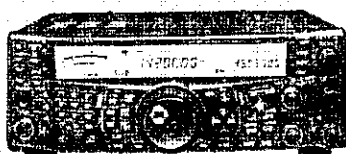
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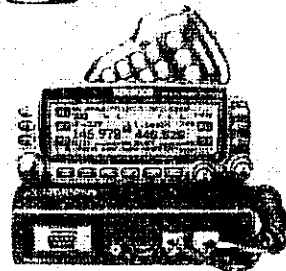
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FT-100D HF/6M/2M/70CM Trans.

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- AF-DSP • Plug and Play Filters • No Soldering
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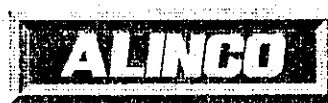
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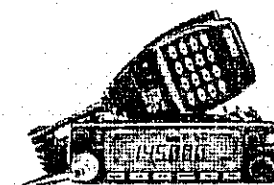
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