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Sonoma County Radio Amateurs, Inc.  
PO Box 116  
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RCA VOLTOHMIST 110V/battery operation \$25. W6DTV 823-7885.

MFJ-814 and MFJ-900 Tuner \$45. Ray KF6RS 528-3332.

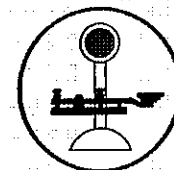
DRAKE TWINS R4C, T4XC, pwr, spkr Best offer. FT101B Best offer. Hayes WB6KLU 795-5938.

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# SHORT SKIP



Sonoma County Radio Amateurs, Inc.

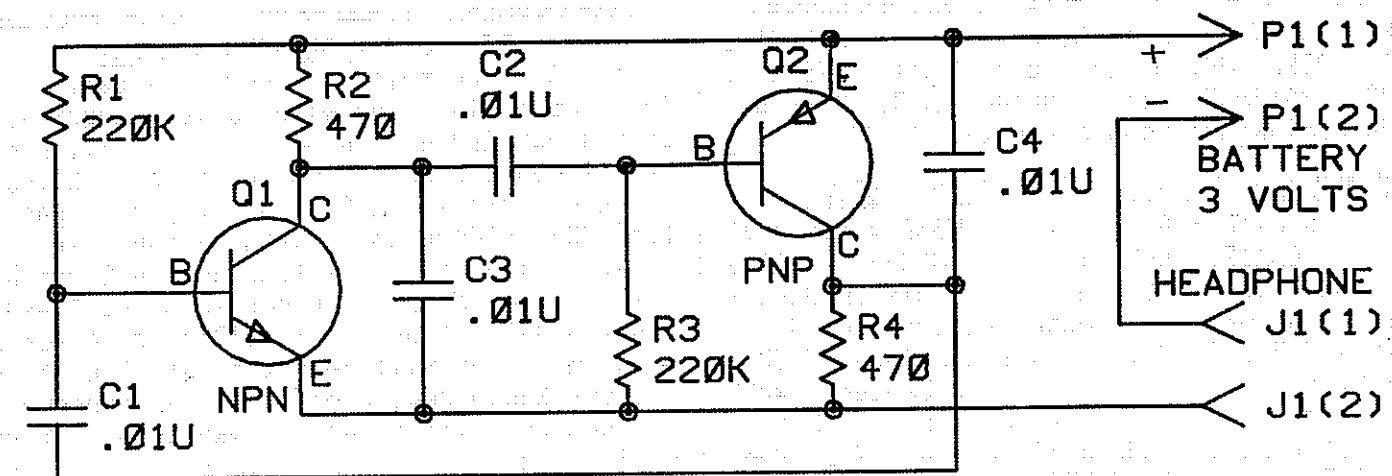
APRIL 1989

Club Station  
W6LFJ

P.O. Box 116  
Santa Rosa, CA 95402

Repeater Station  
WB6PVS

VOL 14 # 4



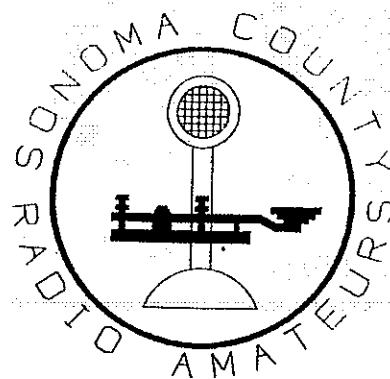
## QUICK AND EASY TRANSISTOR CHECKER

Here's a circuit that I built nearly 20 years ago and still use. It will test nearly any PNP or NPN transistor and give a simple "good/bad" indication.

When you build this circuit, use sockets for the two transistors. To use it, just unplug the appropriate transistor (NPN or PNP) and plug in the device to be tested. If you hear a tone in the earphone, the transistor is good. No on/off switch is necessary -- just unplug the earphone when not in use. If you don't know whether your junk-box transistor is NPN or PNP, or you don't know which lead is which, just try it any way. It's virtually impossible to damage a transistor if you accidentally plug it in the wrong way.

The circuit is a simple 2-transistor oscillator. Since each transistor causes a 180-degree phase shift, the total phase shift is 360 degrees, or "in phase", the proper condition for oscillation. C1 and C2 block low frequencies, and C3 and C4 block high frequencies, forming a simple band-pass filter in the feedback path. If the tone pitch is not to your liking, then change the capacitor values. (Smaller C --> higher pitch)

- de N1AL



## OFFICERS FOR 1989

PRESIDENT: Glen Crownover N6DNB 546-8955  
 VICE PRESIDENT: John Wallack W6TLK 833-1873  
 SECRETARY: Alan Bloom N1AL 538-7115  
 TREASURER: Jim Pelmulder N6PTM 823-7947  
 MEMBERS-AT-LARGE: Chuck Sabin N6DDK 795-2371  
 Bob Olsten WD6DPE 546-5593  
 REPEATER CHAIR: Jim Rutherford WB6PER 526-2972

SHORT SKIP STAFF:  
 EDITOR: Alan Bloom N1AL (e) 538-7115  
 1578 Los Alamos Rd, Santa Rosa, CA 95405 (d) 577-3981  
 CIRCULATION MGR: Tracy Reese WB6TMY  
 SWAP SHOP: Hank Davis W6DTV 823-7885

ARRL LIASON: Alan Bloom N1AL 538-7115  
 ASST. DIRECTOR: Chuck Sabin N6DDK 795-2371  
 BADGE CHAIRMAN: Jim Pelmulder N6PTM 823-7947  
 CLUB HISTORIAN: Connie Freitas N6FYV

### ACTIVITIES COMMITTEE:

PUBLIC SERVICE: Bob Sones WB6EKV 546-3873  
 PROGRAM CHAIR.: Bob Olsten WD6DPE 546-5593  
 REFRESHMENTS @ MEETINGS: Bob Olsten WD6DPE  
 GREETER AT MEETINGS: Jane Vanderslice N6NTB  
 MEMBERSHIP LOTTERY: Warren Klinger WB6RHP  
 QSL MANAGER: Doug Bender WW6D  
 VEC EXAMS: Steve Lund WA8LLY 823-4544  
 WA6ACX N1AL K6ANP AG6C WD6CKP WN6D WW6D  
 W6DTV WW6F WB6FRZ KF6FX W6RIA WB6UDR WU6W  
 EDUCATION: Steve Lund WA8LLY 823-4544  
 WA6ACX, WW6D, WB6PDP, W6TLK, KF6WV  
 AWARDS CHAIRMAN: Steve Lund WA8LLY 823-4544  
 XMAS PARTY: Steve Schaffer KD6GC 546-8860  
 INTERFERENCE CHR: John Lynch W6CCY 823-1357

### REPEATER CONTROL OP'S:

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 WB6PER Jim 526-2972 N6KMJ Russ 823-9691  
 WB6UAZ Kathi 544-7943 WN6D Jim 544-7943  
 PACKET COMMITTEE: Al Bloom N1AL, Jim Boyett  
 WN6D, Rich Freitas KA6SSL

#### SHORT SKIP ADVERTISING RATES:

Business cards: \$10

\$11 First 1/4 Column  
 \$3 Additional 1/4 Columns  
 (\$32 Full Page, 1 side)

Pre-printed inserts: \$32/sheet

Guaranteed circulation: 200/month  
 AD DEADLINE: 15th of previous month

#### ARE YOU NOT AN SCRA MEMBER?

IF SO, then this is a complimentary copy. Our club is involved with almost every area of Amateur Radio: Repeaters (13/73), Field Day, license classes (Novice through Extra), volunteer exams, RACES, DX programs, packet (145.03), hidden xmtr hunts -- you name it.

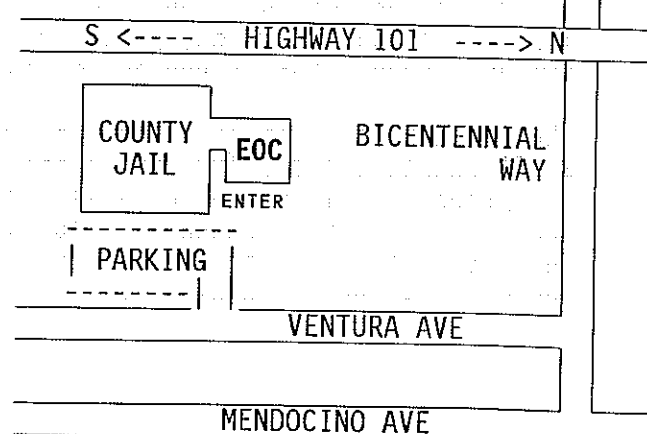
We invite you to attend our next monthly meeting (see below) or check into the Tuesday night SCARS net on the 146.13/73 repeater at 7:00 PM. You will hear the latest Westlink Amateur Radio News broadcast, announcements of SCRA activities, and a Swap Shop. If you would like to join SCRA, please refer to the dues listed below. Hope to have an "eyeball" QSO with you at the next meeting! 73 ...

#### CLUB MEETINGS:

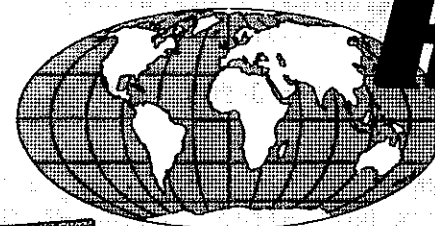
7:30 PM, 1<sup>st</sup> Wednesday each month at the EOC (Emergency Operations Center, see map below) All are welcome to attend.

NEXT MEETING: April 12, 1989

PROGRAM: Panel discussion on packet radio: use in emergencies, BBS systems, NETROM, etc  
 DUES: \$12 per year, plus a one-time \$4.00 initiation fee. Dues are pro-rated \$1/month for new members. With membership, comes an SCRA call/name badge. Family membership: \$18



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 Doraville, 1 mi. north of I-285

BURLINGAME, CA 94010  
 999 Howard Ave  
 (415) 342-5757  
 George, Mgr. WB6DSV  
 5 miles south on 101 from SFO

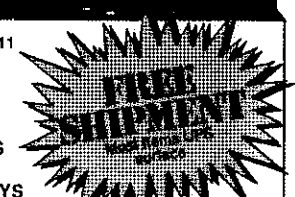
OAKLAND, CA 94606  
 2210 Livingston St  
 (415) 534-5757  
 Al, Mgr. WA6SYK  
 17th 5th Ave / 175-16th Ave

PHOENIX, AZ 85015  
 1702 W. Camelback Rd  
 (602) 242-3515  
 Bob, Mgr. K7RDH  
 East of Hwy 17

SAN DIEGO, CA 92123  
 5375 Kearny Villa Rd.  
 (619) 560-4300  
 Tom, Mgr. KM6K  
 Hwy 163 & Claremont Mesa Blvd

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 6265 Sepulveda Blvd  
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SCRA MINUTES

MARCH 1, 1989



The meeting was called to order by President Glen Crownover N6DNB at 7:33 PM. Other Officers present: Vice Pres. John Wallack W6TLK, Secretary Alan Bloom N1AL, Treasurer Jim Pelmulder N6PTM, and Members-at-Large Bob Olsten WD6DPE and Chuck Sabin N6DDK.

Jane N6NTB introduced the VISITORS: Alan Judd, Arthur Hampton, Kathleen Eilers, Larry Stewart KC6BSI, Philip Gaul KB6LWE, Jack Foster, Wym Vanderhorst, and Merlin Fie.

UPGRADES: Jane is hoping for next month.

MEMBER INTRODUCTIONS, round-robin style, were re-instated with this meeting.

The MINUTES were approved as published in *Short Skip*. m/s W6DTV/WB6SMY

The TREASURER'S REPORT for February shows \$473.26 in the General Fund and \$1981.65 in the Repeater Fund. m/s WB6PTA/K6GEV Jim also has member badges to be picked up.

EDUCATION: Tracy WB6TMY starts his Novice class March 7, 7 PM at the EOC. About 10-15 are signed up so far. Bob WB7CNJ offered to bring his IC3AT to demo the 220 Novice band to get the tykes fired up with enthusiasm.

ACTIVITIES CHAIRMAN: We still don't have one, so the Board will try to fill jobs on an as-you-go basis. We still need someone to run the Homebrew Contest, Field Day, Picnic, Christmas Party, and last but not least, the FLEA MARKET.

SECRETARY'S REPORT: N1AL read a letter from KU6F thanking whomever it was who answered his emergency call from Bodega bay. Al also handed out free Bishop Graphics tape pads (for doing PC artwork).

SCARS NET: W6TLK needs a volunteer for Net Control Station for March. Sarah N6FAX stepped forward. We've been getting around 20 check-ins per night. We will link to the 220 repeater for the next net.

We re-started the RAFFLE this month with donations from Farmers Lane Radio Shack. Next month we should also have donations from HSC Electronics.

The PROGRAM was a well-done videotape on ATV (Amateur Television), shown by Bob WD6DPE.

The membership lottery was lost by Connie N6FYV who would have won \$23.25 had she been present.

N6PTM reminded everyone to RENEW YOUR ARRL MEMBERSHIP THROUGH THE CLUB as we get to keep \$2 (\$5 if a new member).

The meeting adjourned at 8:48 PM. m/s N6DDK/WB6SMY. Respectfully submitted by Al Bloom N1AL, Secretary.

TREASURER'S REPORT

FOR MONTH ENDING FEBRUARY 28, 1989



ACCOUNT	REVENUE	EXPENSE
Dues and Initiations .....	164.00	
Misc .....		30.61
Donations .....	19.61	150.00
Club radio .....		275.00
Short Skip Newsletter .....	32.00	386.50
Westlink Report .....		14.89
Officers' Expenses .....		8.65
	215.61	865.65
ASSETS:		
General Fund Account	315.26	
Cash/checks on hand	158.00	
Total General Fund	473.26	
Total Repeater Fund	1981.65	

- de N6PTM

Radio Shack

STORE NO. 3855

ZANE BATES  
MANAGER

510 FARMERS LANE  
SANTA ROSA, CA. 95405

TELEPHONE  
546-8423

IT'S EASY!

There must be SOMETHING that interests you about Amateur Radio. Why not write about it?

I hate to fill *Short Skip* with material lifted from other publications -- we need more inputs from the members. Some ideas:

A COLUMN on your favorite subject. DX, ATV, Packet, Antennas, 10-10 net, county hunting... anything about Amateur Radio. A FUNNY STORY you've heard. A LETTER TO THE EDITOR with a gripe or opinion about the hobby. A CARTOON. You needn't be an artist -- coming up with the ideas is the hard part.

PHOTOS of radio activities. I can now do my own half-tones from color or (better) black-and-white photos. All I need are the photos!

A TECHNICAL ARTICLE: A portable antenna, a mike preamp, how to solder a coax connector, how to make a "bug", ??? GOSSIP heard on the air. Hank used to have lots of this when he was *Short Skip* editor, but I'm not on 2 meters that much. We could even have a little photo of you like in the big newspaper gossip columns!

Now that I have an IBM clone computer, it's easier than ever to submit articles to *Short Skip*. In order of preference, here's how:

- 1) Send it on disc.
  - 2) Send it by packet radio.
  - 3) Upload it to the club BBS.
  - 4) Send me a typed or handwritten article.
  - 5) Call me on the phone.
- 
- 1) I have *Uniform*, a disc format conversion program, so you can submit articles in virtually any 5" IBM PC, MS-DOS or CP/M single or double density format (no quad density). 8" SSSD IBM format also OK.
  - 2) N1AL is QRV 24 hours/day on 145.03 MHz. If my "connect" message says my disc drive is on-line, I'm ready to copy.
  - 3) The club BBS phone number is 527-7734. I check in at least once a month just before putting *Short Skip* together.
  - 4) Typed is best, but crayon on stained napkins swiped from McDonald's is fine.

My address & phone numbers are on page 2. If you phone, I'm easiest to catch at work.

SCRA MEETING  
DATE CHANGED!

Due to a scheduling conflict at the EOC this month, the club meeting will be on the second Wednesday, April 12. It's still 7:30 PM at the EOC.

NO MORE SHORT SKIP???

That's right, unless you've paid your dues. This issue is your "grace issue" as dues were due March 1. Also, autopatch codes will be changed next month, and only members will get the new codes.

Look next to your mailing label: if it says "Dues are Due" then our records show you haven't paid yet. Get your \$12 (\$18 family membership) to Jim Pelmulder N6PTM at the next meeting or mail to the club PO Box.

NO MORE FD PLAQUE?

Field Day is less than 3 months away, and it looks like the Redwood DX Assn. already has a leg up on us in the annual competition.

Their site this year is an old AM radio station across from the X-rated SonoMarin Drive-in near the Sonoma-Marin county line. (It'll give the gang something to watch between QSO's.) They have a large 2-room building, tower base and guy anchors for a 465 ft tower, and 120 radials 465 ft long buried in the marshland. Looks like an ideal FD site! Tnx REDX's *Sunspots*

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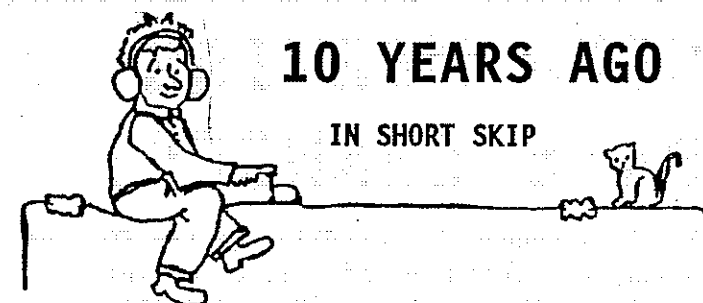
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KS6W



# 10 YEARS AGO

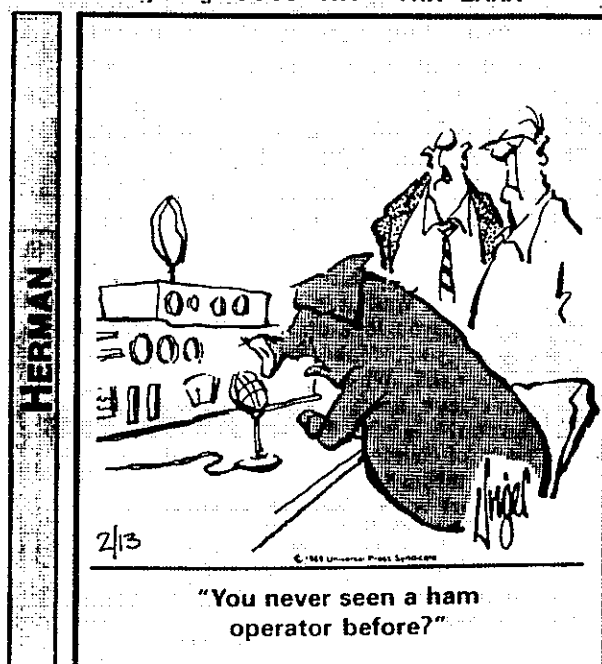
IN SHORT SKIP

April 1979 was the month SCRA voted to establish a sister club relationship with Hans Berg DJ6TJ's club in Lubeck, West Germany. (We still keep in touch, sending a copy of *Short Skip* every month and getting a subscription to *CQ DL* in return -- a very advantageous exchange!)

The April meeting was to feature a talk on traffic handling and the ARRL National Traffic System by Ken N6KM and John WA6SKC.

Editor WB6NBR reports that Hoppy WD6CKP just returned from Okinawa with a set of "T" cups for Betty. Ron hadn't realized that the women of the Pacific were that big.

**BEFORE YOU GIVE UP THAT CALL** with a two or three-letter suffix as you upgrade, consider that many hams are referred to by their suffix. For example 'DDK', 'PER', 'AL', etc. There's something unrhythmic and awkward in trying to use a single letter call in this manner. When we refer to *good ol' D*, are we talking about Jim or Doug? You can have only 26 unique *noms d'abbrev* in one area before ambiguity sets in. Tnx LARK



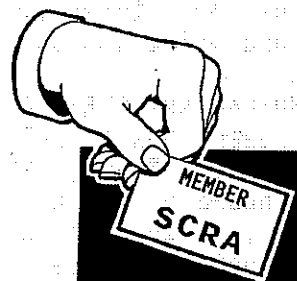
"You never seen a ham operator before?"

# BIG EARTHQUAKE DRILL APRIL 6

In case you just got back from Botswana and haven't heard, the County earthquake drill is Thursday April 6, and RACES will have a big part in it. The hams will be needed between 8 AM and 11 AM. Many of us are taking a few hours off from work to take part.

If you haven't signed up yet, contact your area coordinator or Jim Rutherford WB6PER 526-2972 or via packet: KWDBB on 149.91.

# NEW AND RENEWED MEMBERS



## SINCE LAST MONTH:

Philip Gaul KC6BSI  
739 Wheeler  
Santa Rosa, CA 95404  
544-2572

Paul Hrenoff N6OKJ  
1525 Moonview Court  
Santa Rosa, CA 95401  
528-7745

Robert Wright WB7CNJ  
320 Candlelight Dr.  
Santa Rosa, CA 95403  
571-8262

Robert Morrison N6PHN  
537 El Dorado Court  
Santa Rosa, CA 95404  
544-4893

Jay Goldberg KB6ENY  
2051 Leonard Ave.  
Santa Rosa, CA 95405  
575-8008

Phil Richardson WA6SEU  
3613 Cypress Way  
Santa Rosa, CA 95405  
527-0935

Robert Tuttle K6OEQ  
440 Jackson Drive  
Santa Rosa, CA 95405  
542-4692

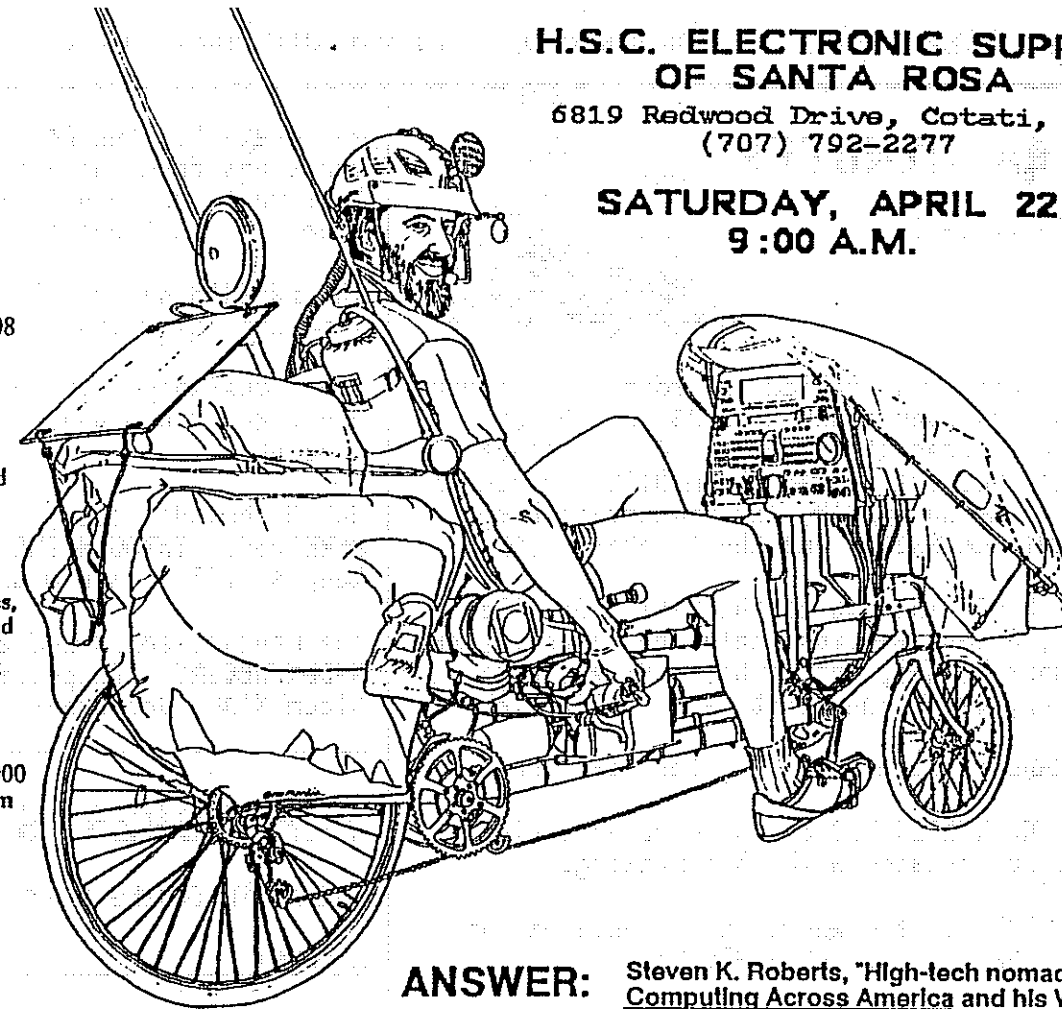
Jacques Wibier WB6ZRP  
496 Greenwood Dr.  
Santa Rosa, CA 95407  
578-1927

Chuck Frounfelkner N6JJC  
PO Box 800  
Gualala, CA 95445  
884-4705

If everyone renews, we  
will have 195 members.

## QUESTION:

What has 5 computers, 54 speeds, over 200 feet of zippers, 5 solar panels, 80 thru 10 meter multi-mode amateur radio, two-meter amateur radio, packet data communications, a TV set, 108 square feet of tent space, a remote controlled motion-sensing paging security system, air horns, 4 Mb of memory, nearly 50 MB of disk, 3 modems, hydraulic and disc brakes, a speech synthesizer, a backlit VGA display driven by a 286/386 system, 148 spokes, GPS navigation, CD-ROM libraries, a FAX machine, telemetry and radio control of system functions, a pressurized water system, digital test equipment, a mobile R&D lab, an 8-key handlebar keyboard, resource management via 68000 FORTH machine, a microfilm documentation library, six lights, one seat, a flute, a 6'4" pilot, and over 16,000 miles on its digital odometer?



**ANSWER:** Steven K. Roberts, "High-tech nomad", author of *Computing Across America* and his Winnebiko II

## QUESTION:

How can you see this computerized bicycle for yourself and ask Mr. Roberts all about it?

## ANSWER:

Mr. Roberts and the Winnebiko II will be making an appearance at all three Halted Specialties Co. (HSC Electronic Supply) locations for a book signing and question-and-answer session. He will be discussing his plans for the new Winnebiko III and his upcoming journeys. Come to HSC and visit with the man who has covered the country on his high-tech recumbent bicycle. This may be your only chance, as his wanderlust may not lead him back for a very long time!

## Schedule of appearances:

HSC Electronic Supply of Santa Clara. 3500 Ryder Street at Central Expressway  
Saturday, April 8, 1989. Call (408) 732-1573 for more information.

HSC Electronic Supply of Santa Rosa. 6819 Redwood Drive  
Saturday, April 22, 1989. Call (707) 792-2277 for more information.

HSC Electronic Supply of Sacramento. 5549 Hemlock Street  
Saturday, April 15, 1989. Call (916) 338-2545 for more information.

Halted Specialties Company, Inc., is proud to be a Sponsor of *Computing Across America*. Mr. Roberts exemplifies the spirit of the innovative, technically diverse customers who have come to rely on us for products and services for the last 25 years.

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Send \$1.00 to HSC Electronics Supply, 3500 Ryder Street, Santa Clara, CA 95051 for Giant Flyer describing some of the items available from HSC Electronics Supply

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• SANTA ROSA (707) 792-2357

**H. S. C. ELECTRONIC SUPPLY OF SANTA ROSA**  
6819 Redwood Drive, Cotati, CA 94931 (707) 792-2277

\*\*\*\*\* **Notice** \*\*\*\*\*

**A Computer, Electronics and Amateur Radio Swap Meet**

will be held on

**SATURDAY, APRIL 22, 1989**

from 8:00 a.m. until ????? in the South parking lot

**Sellers need to bring your own tables and chairs. Set-up begins at 7:00 a.m. Due to limited space available, reservations are recommended if you plan to sell. Call H.S.C. Electronics at 792-2277.**



----- > **A U C T I O N** < -----



**An auction of warehouse overstock will be held beginning at 12:30.**

**STEVEN K. ROBERTS, "High-tech nomad", author of 'Computing Across America' and his Winnebiko II will be here that Saturday beginning at 9:00 a.m. for a book signing and question-and-answer session. Steve's works have been featured in 73 Magazine and various other amateur radio and computer magazines.**

*Please Join Us*

## AN AVIAN ADVENTURE

*Bodega Bay CA, Jan 29, 1989, 1600 hours PST*

For at least 15 years, my wife and I have used Bodega Harbor for most of our bird-watching. During those years, we have witnessed at least 3 emergencies and have been aware of many more reported in the newspapers. For the last 3 years, I have habitually carried a two-meter handheld transceiver in addition to a telescope or binoculars when riding around Bodega Harbor or walking on Bodega Head.

This Sunday afternoon, while focusing the telescope on a Whimbrel (a kind of bird, not a piece of electronic equipment or a boat), a lady ran up to us and excitedly asked if we could look through our telescope at a boat which had just capsized next to Bodega Rock. Her husband had run to the parking lot where he hoped to find a Ranger, or lacking that, drive to the nearest phone at Spud Point. She was quite startled when, not only did we look at the upside-down boat, but called for help using the two-meter handheld.

The operator we contacted through the WA6YGD (145.350) repeater had just walked into his shack. The Coast Guard cutter *Chico* was already in the channel, leaving the harbor on an exercise, so there was no delay. It was only a few minutes until two small boats from the cutter were rescuing two men and their overturned boat.

I felt lucky that I did not find myself running for help, so I was very grateful for such easy access to a repeater.

- Jim Dimmick KU6F

Editor's note: In the excitement, Jim didn't write down the call of the station he talked to. If it was you, please contact him at 456 Harding Ave., Livermore, CA 94550. ■

If the members of our ham club were on an airliner about to crash, the club President would appoint a landing committee.  
Tnx ARNS.

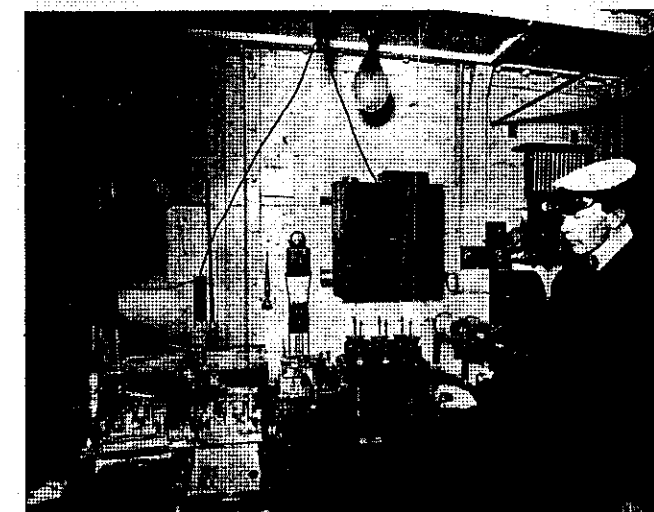
## WOODPECKER REPORT

BY JAMES T. BECKHAM,  
FCC FIELD OPERATIONS BUREAU

The Federal Communications Commission's high frequency network collected data concerning "Woodpecker" radio transmissions during a one-week period beginning August 14, 1988. All 13 FCC Monitoring Stations participated. Over 400 observations of the "Woodpecker" signal were recorded. Our findings are:

- 1) The pulse rate remains 11-11.5 pulses/sec
- 2) The pulse width remains at 4 milliseconds
- 3) The lowest confirmed frequency was 7 MHz and the highest was 19 MHz
- 4) The lowest confirmed bandwidth was 20 kHz and the highest was 800 kHz
- 5) The most occupied bands appeared to be: 10.5-11, 12.2-13, and 16.0-17 MHz.
- 6) The least occupied bands appeared to be: 9.7-10.5, 11.0-12.2, and 13.0-15.0 MHz.
- 7) The bandwidth mean was 150 kHz, median 75 kHz, with a standard deviation of 207 kHz
- 8) The air time was, as a minimum, 7.7 min mean, 3 min median, 12.3 min standard dev
- 9) All transmissions came from a single location at 51 deg 24 min N by 137 deg 42 min East near Komsomoisk in the USSR

These observations agree with the findings of monitoring conducted Feb 23 - Mar 1 1986. This appears to be the permanent pattern of operation of the "Woodpecker". Questions or comments should be directed to James Beckham at 202-632-6977. Robert Horvitz, ANARC, PO Box 143, Falls Church, VA 22046. Tnx PPRS ■



**1900** Typical shipboard installation.

## IS THE NET A RIP-OFF OF NET/ROM?

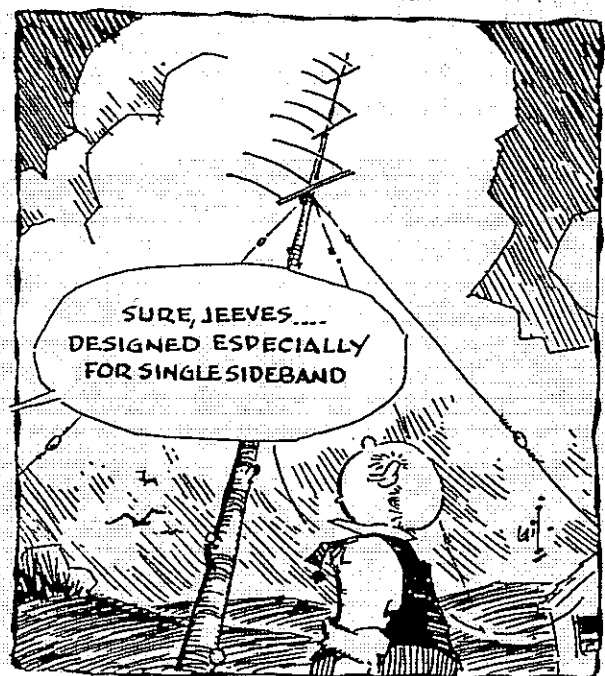


NET/ROM is a ROM replacement for a standard TNC-2 that allows automatic higher-quality communication over long chains of packet radio links. It contains a program written by Ronald Raikes WA8DED and is sold by his company, Software 2000.

TheNet is a public-domain replacement for NET/ROM written by NordLink, a group of hams in Germany. Since it was introduced, WA8DED has consistently claimed it is an illegal copy of NETROM.

Last summer, Thomas M. Allen WA6IGY was able to convince WA8DED to loan him a copy of the NET/ROM source code so he could compare it to the source code of TheNet. His article in the March PPRS Newsletter runs to over 3 pages of small type.

To summarize, WA6IGY found that, of the 234 routines used in NET/ROM, 232 correspond to a similar routine in TheNet. Each has the same number and type of calling parameters, but the order of the arguments has been



consistently reversed. Every TheNet C function uses an identical number and type of auto variables allocated on the stack, and they occur in the same order as in the corresponding NETROM routine. All preset data structures are identical to NET/ROM.

Nine interrupt service routines in NET/ROM that had been hand-optimized for speed are duplicated byte-for-byte in TheNet.

Differences between the two programs include addition of two features to TheNet (full duplex and the HIGH and LOW commands.) WA6IGY considers these fairly trivial additions. Other differences can be attributed to NordLink's use of a later version of the C compiler.

He feels that comparison of source code is much more accurate than object code since small changes in address assignments and the order of arguments in procedures can result in large differences in object code. WA6IGY's Evaluation: "Based on a line-by-line comparison of the two products and 22 years of software experience, I am convinced that the only way that TheNet could be identical in structure, calling sequences and variable definitions of NET/ROM would be to have disassembled/de-compiled the object code from NET/ROM. TheNet is not an original development, but rather a replica of the thoughts, concepts, and the painstakingly developed design embodied in Net/ROM. According to NordLink, 'disassembling NET/ROM and then rewriting it in C would be silly.' However, since the source was not available, their only alternative was to do exactly that - disassemble the binary code from a NET/ROM EPROM and construct a source program that would produce identical binary code."

"It is my conclusion, and I believe would be the conclusion of any rational reviewer, that TheNet is not an original development, but rather a direct copy of NET/ROM. ... According to NordLink, 'It is truly a new and innovative program with many new features.' I have seen no evidence of originality, innovation, significant enhancements, or functional changes."

WA6IGY states that he has no connection with Software 2000 nor any proprietary interest in NET/ROM. His interest in doing this evaluation was purely technical.

## DON'T STOP ME NOW!

by Arnold Smith KA3NTZ, in X-MITTER

Who among us has not seen a familiar name or callsign in a list of silent keys? How quickly and sadly the news is passed. There is nothing anyone can do but feel momentary grief, and life goes on.

There is no list maintained for the "lost keys". These are the hams who have opted to throw in the towel. More hams are found on this list than the other. It is certainly much sadder. The causes are varied, and each is seemingly valid. No record is ever kept, and little notice is taken of this insidious silencer of the airwaves.

The reasons given are not necessarily the truth. Few hams will admit to a simple fact: They are bored. Bored with the conversations, bored with the people, and bored with the hobby. Somehow, they seem to have lost the gusto.

Among the many reasons cited by "lost keys" are TVI problems, XYL static, and lack of operating time. Darn good excuses, I admit. But where there is a will, why there is certainly a way. The main enemy is boredom.

A further study into this lost key syndrome turns up some interesting facts. Very few people who were hams before the 60's ever drop out of their own volition. Somehow they manage to stay active to some degree. The majority of these hams are adept at CW and SSB. Many are home-brewers. World War II created a generation of hams, most of whom are still very active.

In the 60's CB radio was introduced, and the general public discovered two-way radio. The next 10 years saw astronomical sales as the idea caught on. The experimenters soon discovered how to exceed the legal power limits and operate out of band. Due to the rapid deterioration of the CB channels which began in the mid 70's, many were seeking a new mode in which to continue. It was only natural that Amateur bands would beckon to those anxious to escape the filth and smut that had become the CB of the late 70's and early 80's.

By the score, these ex-CB'ers entered the Amateur ranks. Many were only interested in reaching Technician class. They had little love for CW or any other phase of our hobby. This was to change as time went by, and they became aware of the new fields of interest. Some of the finest hams in Amateur Radio today started as CB'ers. It is unfortunate that many others are, after all these years, still at the Technician stage.

A large segment of the ham population today falls into the "Terminal Tech" category. These ex-CB-ers stoutly maintain a hatred for CW and refuse all offers of assistance or aid. It is from this group that the majority of lost keys are derived. Many leave for a period of time and then return, only to leave again.

Novice enhancement began in March 1987. It is much too soon for an intelligent forecast of what the future will bring. Opinions are divided, and many old timers are doubtful. I fear that unless they upgrade quickly, many will, once the novelty has worn off, join the ranks of lost keys.

As important as Novice classes are, we must get the students past the Tech barrier. Classes in code should be an on-going event. Many folks require that extra little "push". It can be a club effort, or a one-on-one try. No matter, if we can keep from "losing more keys", it will be well worth it.

Tnx ARNS



AROUND THE WORLD  
WITH SHORTWAVE

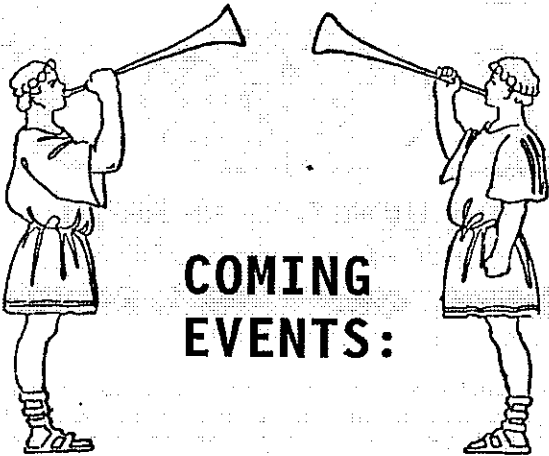
BY DONNA JEAN HOPPER N9HYI

Shepparton? Hilversum? Johannesburg? Quito? Can you tell me where in the world they are? Ask any shortwave listener, and they'll tell you. These cities are home to the popular Radio Australia, Radio Nederland, Radio South Africa, and HCJB The Voice of the Andes (Ecuador). You can hear them every day in English, on your general coverage transceiver or shortwave radio. Yes, Amateur Radio and shortwave listening go hand-and-glove.

Shortwave listening can put you in touch with the news and views of the world. The BBC (British Broadcasting Corp.) is tops in its field. Radio Moscow, although it doesn't win any popularity polls, certainly is one of the biggest stations in the world. Radio Sweden, a worldwide favorite, is entertaining, informative and professional, and delivers good signals to most parts of the world. News commentaries on Swiss Radio International reflect Switzerland's neutrality, and music programs are popular. For haunting Gypsy music, try Radio Gjrokaster from Albania on 5057 kHz.

Many stations have regular "DX programmes" for those interested in various aspects of radio listening. Propagation reports, tips on antennas, pen pals, and letters from listeners are featured. HCJB from Ecuador offers "DX Partyline" in English. Radio Japan has a weekly "DX Corner". Don't worry if you don't speak Japanese. They broadcast in 21 different languages including English.

So don't let those shortwave bands on your general-coverage transceiver go to waste. Better yet, dig out your shortwave radio from the attic, blow off the cobwebs, and for a change, LISTEN to the world. Hear the international news as you've never heard it before. From the drums of Africa to the digerridoo of Australia, from the propaganda of Radio Habana to the voices crying out on Radio Free Europe, from the papal news from the Vatican, to the singing of the Koran from the Middle East, the shortwave bands are truly your passport to the world. Tnx CSRA Newsletter, Chicago.



Don't forget SCARS net on Tuesdays at 7 PM.

- APRIL:
- 3 - RACES etc. Net 7:30 PM
  - 6 - RACES Earthquake Drill, 8-11 AM
  - 8 - Foothill College Flea Market
  - 10 - ARRL 144 MHz Sprint
  - 12 - SCRA meeting 7/7:30 PM
  - 17 - RACES etc. Net 7:30 PM
  - 18 - ARRL 220 MHz Sprint
  - 20 - CDF/VIP Meeting 7:30 PM
  - 26 - ARRL 432 MHz Sprint
  - 28-30 - Dayton Hamvention
- MAY:
- 21 - HAMSWAP' 89, Folsom
  - 27-28 - CQWW WPX Contest
- JUNE:
- 2-4 - ARRL National Convention, Dallas TX
  - 10-11 - ARRL VHF QSO Party
  - 24-25 - Field Day
- JULY:
- 8-9 - IARU HF World Championship
  - 15-16 - CQ WW VHF WPX Contest
- SEPTEMBER:
- 9-11 - ARRL September VHF QSO Party
  - 16 - SCRA Flea Market
- NOVEMBER:
- 4-6 - ARRL Sweepstakes, CW
  - 18-20 - ARRL Sweepstakes, Phone
  - 25-26 - CQ Worldwide CW DX Contest
- DECEMBER:
- 1-3 - ARRL 160 Meter Contest
  - 9-10 - ARRL 10 Meter Contest
- VE EXAMS HOTLINE NR: 408-984-8353

[Cut and save for when the regular NCS doesn't show:]

SONOMA COUNTY RADIO AMATEURS INC.  
TUESDAY NIGHT NET - CALLUP PROCEDURE

CAPITAL LETTERS = Material to be spoken by Net Control Station (NCS) on the air

[small letters] = Instructions to you, the NCS.

Remember to ID every 10 minutes.

CALLING ALL RADIO AMATEURS. CALLING ALL RADIO AMATEURS! THIS IS [your name and call here], NET CONTROL STATION FOR THE SONOMA COUNTY AMATEUR RADIO SERVICE NET. THIS NET IS SPONSORED BY THE SONOMA COUNTY RADIO AMATEURS, INC. AND MEETS ON 146.73 MHZ EVERY TUESDAY NIGHT AT 7 PM.

EMERGENCY TRAFFIC ALWAYS HAS PRIORITY OVER ALL OTHER COMMUNICATIONS. ANY STATION HAVING EMERGENCY TRAFFIC DURING THE NET WILL CONTACT NET CONTROL.

SCRA MEMBERSHIP IS OPEN TO ANY INTERESTED PERSON IN THE SONOMA COUNTY AREA. FOR FURTHER INFORMATION, CONTACT ANY MEMBER STATION OR WRITE TO: SCRA, P. O. BOX 116, SANTA ROSA, CA 95402. THE CLUB MEETING IS THE FIRST WEDNESDAY OF EACH MONTH AT THE SONOMA COUNTY EMERGENCY OPERATIONS CENTER IN SANTA ROSA.

THE PURPOSE OF THIS NET IS TO PROVIDE INFORMATION OF INTEREST TO ALL RADIO AMATEURS.

AT THIS TIME, I WILL TAKE STATION CHECK-INS ...

[The check-in procedure is up to the Net Control Station ... You are in total control at all times! Make sure everyone understands that you are in command!]

THANK YOU FOR PARTICIPATING IN THE SCRA NET. DO ANY OFFICERS OF THE CLUB HAVE ANY ANNOUNCEMENTS FOR THE NET?

ARE THERE ANY OTHER ANNOUNCEMENTS FOR THE NET?

HANK, W6DTV, DO YOU HAVE ANY SWAP, SELL, OR WANTS FOR THE NET?

HOPPY, WD6CKP, DO YOU HAVE A WESTLINK REPORT TONIGHT?

ARE THERE ANY OTHER COMMUNICATIONS FOR THE NET?

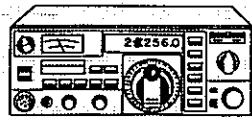
THANK YOU FOR LISTENING TO THIS SESSION OF THE SCRA NET. THIS SESSION IS NOW CLOSED. THIS IS [your call here], NET CONTROL. 73!

[End] [Rev. 3-89 de W6TLK]

The net meets Tuesdays at 7 PM on 146.73 MHz.

DUES in SCRA are \$12 per year, or \$18 for family memberships. New members' dues are pro-rated, \$1 per month after March 1. Initiation fee is \$4. Renewing members pay the full amount no matter when they renew.

## WHAT IS THIS TEN-TEN STUFF?



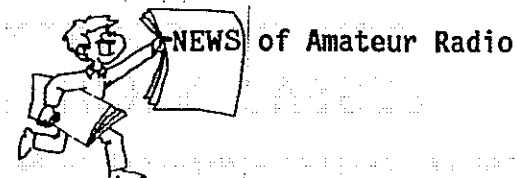
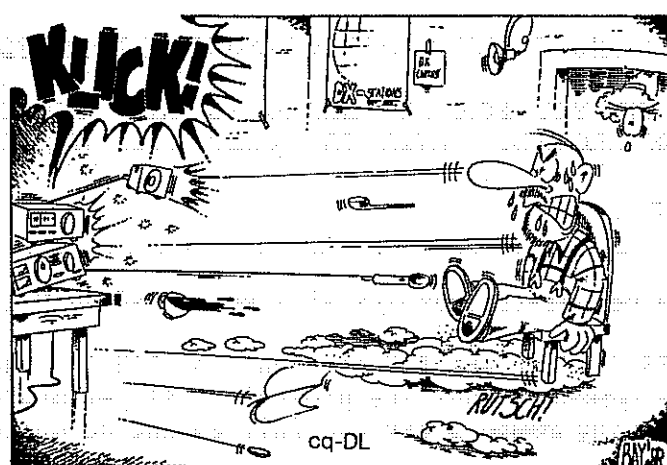
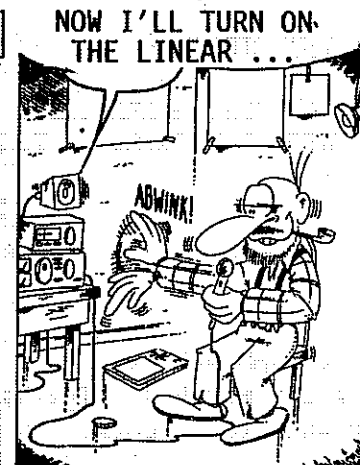
By Don Pomplun K2B10

10-10 has been around since 1962 when it was a traffic net that met at 10 o'clock on 10 meters. A few years later the exchanging of membership numbers was born. Membership soared in the late 70's and now exceeds 40,000. The professed purpose is to foster activity on 10 meters. In addition to all the possible ham activities, Ten-Ten is an ongoing contest. The central organization (10-10 International) gives certificates for working increasing numbers of members, with special recognition for working all states, continents, and the Countries Award.

Local groups form not only for comraderie, but many also issue regional certificates for those who qualify by working a specified number of local members. Semiannual contests bring out thousands of members.

You can join by working 10 members, exchanging call, name and QTH, and recording their 10-10 numbers. Mail this information with \$5 to Dick Rauscher W6ANK, 4371 Cambria St., Fremont, CA 94538. Dick will return your membership material in a few days along with your lifetime 10-10 number. Yearly dues are \$4, which includes the quarterly newsletter.

Twist the bandswitch up to 28 MHz, and join the activity. Your tired old SSB rig will do fine, or consider one of the new single-band rigs. It must indicate something that Tandy's market research has targetted ten meters as the best way to break into the ham radio business. Tnx LARK.



**IS THERE STILL HOPE FOR 220?** FCC is expected to grant an ARRL request to present oral arguments before the Commission in the League's Petition for Reconsideration filed last Oct 9. In it, ARRL stated "in order to justify what clearly was a predetermined outcome to this proceeding, the Commission failed to address the arguments of the Amateur commenters; it extended the reply comment dates after the deadline for filing reply comments without advance notice; it accepted comments of UPS more than six months after the close of the already-extended comment dates because the record lacked support for the position the Commission had already chosen in this proceeding..."

The ARRL's hard-line approach, along with possible Congressional hearings, may yet result in reversal of last summer's FCC decision to reallocate 220-222 MHz to the land mobile service. Tnx Westlink Report.

**ARRL FILES REPLY COMMENTS IN RULES REWRITE** The League reiterated its opposition to proposed Section 97.221 which states "The FCC may restrict operations as necessary to prevent harmful interference." This would eliminate legal protection for Amateurs with TVI/RFI problems. Tnx ARRL Letter.

**VOLUNTEER EXAM FRAUD IN PUERTO RICO** has resulted in revocation, suspension or voluntary termination of the licenses of 11 Puerto Rico hams. Tnx ARRL Letter.



What is the best QTH for HF?

Volumes could be written on this subject, so we'll just stick to locations that would be desirable from a living point of view, as well as for a superb radio location.

Contrary to Worldradio antenna articles (they seem to ignore the receiving aspects of HF radio), one of the most important items to consider is; what is the best location to give the least problems on receiving HF signals. Almost as important is having very good TV reception too. Another aspect is having a superior signal-to-interference ratio - referring to having a really quiet spot - free of man-made noises, local QRM and static (QRN).

Let's consider receiving HF radio signals in general. No one would enjoy trying to listen to weak signals in a pile of static or man-made noise. Yet this is just where many VOA transmitters, UPI and AP stations are located. Since they don't have to listen from there, they can be on the salt flats, on marshlands, or out on the deserts, where noises are of no importance, and where super antenna installations are acceptable. Salt flats have continuous corrosion problems that create power leaks and noisy antennas, marshland areas stink and have mosquitos and noisy water pumps, and deserts are hot and have lots of static from heat lightning.

Commercial receiving sites understand these things and never locate near these places. They use receiving spots like Forestville, Tracy, Point Reyes and Halfmoon Bay, where the reception is superior. It's not that the signals are stronger - it's because the noise and/or interference is weaker.

One of the most famous hams in the world, Don Wallace, W6AM (SK) bought the Globe Wireless receiving location right after World War II, in Rolling Hills, California. He discovered that they wanted to sell the place - about 50 acres - and it had numerous rhombic antennas and dozens of 100 foot telephone poles. Don had 3 phase power run (underground of course), and set up a real ham shack. He was a sort of king-of-the-hill guy then. Interestingly, Hughes Aircraft bought the Globe Wireless transmitting site next to their airport, and the Hughes hams had a ball setting up a super station for DXing. (Anybody remember W6SA?) But their biggest problem was hearing the DX that Don was working because of their noisy industrial location. Don led the world for many years as top dog on the DXCC Honor Roll.

Another famous ham, Reg Tibbetts, W6ITH has a super location, but when you first see his spot you'd think "How in the world does he work out so well?" He gets exasperated telling everyone about how he designed his antenna farm to do it. Reg, just before the War, found that the East Bay Municipal Utility District wanted to sell about 200 acres of watershed land in the Moraga valley. He bought the place and built a fine home in the center of this mini-valley. He installed 5 "articulated" rhombic antennas that pointed out through the canyons that led into his valley. He also had P.G. & E. run the last mile of power lines at 4KV, using 12 KV insulators. And the last 1/4 mile was underground. From this spot Reg was the first in the world to make DXCC on phone...DXCC number one!!! I have listened from his place and I'm sure you could hear a pin drop in Reunion Island - on a clear day, of course!

I asked Jay O'Brien, W6GO who was the loudest station he heard from California when he had operated from Tahiti, and he said, "W6ITH... In any pile-up I had, if Reg was calling me, I would immediately recognize his voice. He didn't even have to finish signing his call!"

Another reason that Reg's QTH is so good is that he has virtually no local interference. The hills around his place tend to attenuate most local HF signals, so his calling buddies are much weaker than they would be if they were line of sight. That is a very big advantage when you're in a pile-up!

I mentioned good TV reception is desirable. Maybe I should say mandatory. And for this reason: when assembling a first class station it almost goes without saying that TVI will be a major consideration - both from your own and your neighbor's. (You DO want friendly neighbors - that's vital!!!) In order to put up some not-so-beautiful antennas and towers one has to consider TVI problems. If the TV signal is very weak, then the TVI is almost certain to happen. TVI is such a subjective thing. Weak and snowy TV pictures are very easy to clobber. But with strong TV signals the same amount of harmonic leakage from your station probably wouldn't bother any well-designed TV set and antenna. It's a matter of TV signal-to-interference ratio.

You've gotta hear the station before you can work him, goes without saying. But there are so many things to think about when hunting for a superior HF radio location, besides interference and TV reception. Like - good water, accessibility, weather, good soil, water drainage and erosion, roads, shopping, medical facilities, property taxes, and the quality of life in these surroundings. But perhaps most important of all - would your spouse really and truly like to live in your dream world of a heavenly HF radio location?