

# 



NEWSLITTER OF THE NORTHERN CALHORNIA EONHSI

> LDITOR, Welso JOHN G. TROSTER LD ASST. KC6NII

82 BLI BROOK WAY ATTERTON, CA., 94027

> NUMBER 233 OUTOBLE 1991

PRESIDENT KAGING

V.P. COVIESE CHAIR, ASAIDA DIRECTORS: W618Q WA68DM NGIV W0ZZ SUC TREASURER KIGED

# Contest Analog Voice Keyer Part 1 By Bob Wolbert, N6IP

This article describes a contest voice keyer circuit using the ISD10xx family of analog voice recorder ICs. The basic circuit provides message recording, playback, and addressing. Enhancements include a T/R switch, a STOP function, a CQ loop timer, and "CT" interfacing. Part 2 will describe improving signal-to-noise ratio, better microphone input schemes, and low power (battery) operation. All circuitry shown has been completely debugged and is on-line at N6IP. It will be battle tested during CQP '91.
(Analog con't page 3)

## INSIDE THIS ISSUE Bulletin Board......Page .2 Ace's Space.....Page 6 TrosterRoster.....Page 6 K6PU Op-Aid.....Insert Next Meeting......Page Henry's Honkings......Page 7 CQP Counties......Page 8 N6TV Top Ten.....Page 9 K1AR Quesstions.....Page 10 K6GSS Questions......Page 11

# THE BREEZE FROM LOUESE In Which Louese Gives Us Our Due

W6ISQ: OK, Louese, what do you want to tell your Miserable Minions (MM's) this month?

KA6ING: They are not MM's, they are nice people. ISQ: You running for re-election 'er sumpin?

ING: Well, not re-election, but maybe I should have a cross

word for some of them!

ISQ: Ahhhh Ha! What are them MM's up to? Say the cross

ING: There are 49 of them who can't read, or at least they do not read the JUG.

ISO: Methinks there be more than that as don't peruse the JUG. But how come you know exactly?

ING: There are 49 of 'em who have not yet paid their dues. They will know they have not paid because of the RED X on their mailing label. Now three months overdue.

ISQ: So if there is a RED X on the mailing label, they have not yet paid their dues which was due three months yore?

ING: That's what I just said. You got trouble hearing?

ISQ: Ahhhh...OK, don't be a 49er. Now, let's tell the MM's how to pay up and retain their membership in the worldfamous NCCC, and continue to receive the worldinfamous JUG.. Tell 'em.

ING: Dues are only \$24 for a whole year for regular members and only \$12 for associates and students. It's a bargain,

you can't have supper as cheap.

ISQ: I guess the MM's can read that OK, but just in case, I'll repeat....\$24 for regular members for the entire year, or \$12 for associates of students.

ING: There you go again. I just said dues were \$24. And send the money to Honest Henry, KJ6LD, that's our own

(Breese con't page 2)

(Breese con't from page 1, col 2)
Henry Stewart, 6672 Elwood Rd., Sam
Jose, CA 95120.

ISQ: OK, send your check or money order, or pennies, to KJ6LD. What else have you

got for the MM's?

ING: I keep hearing an echo on the frequency.

Oh well. We do want to thank all members who did renew and especially those who sent in a little extra contribution to help us climb out of the red inkwell which was sabotaging our budget.

ISQ: It was great of them to help out, especially those who committed to the \$100 matching funds. It put us over the top.

ING: We should meet all expenses now—IF— IF—those 49ers will only join up again and be part of the world's greatest... eksertera, eksetera.

ISQ: What else ya got for the MM's?

ING: I wonder how come more people could find the downstairs room in the Hewlitt-Packard building last meeting, than could find a huge picniche in Coyote Point park.

ISQ: Sure do make you wonder sometimes don't it! But, that's the MM's for ya.

ING: I love 'em all but they need a lecture now and again. Oh, I do want to thank bright Steverino, N6ST, for obtaining the keys to the downstairs meeting room at Hewlitt Packard stadium.

ISQ: Everybody missed you at the last meeting, especially at the Pizza Parlor. Bet Larry could of put away one a' them cheese two-footers with seven kinds of sausage in jig time.

ING: They tell me Ace did a fine job of controlling the MM's....ahhhh....the 28 sterling

members who were present.

ISQ: Yeah, for a County Hunter, he done good.

ING: And I hear N7TV's comic routine was great too.

ISQ: His lecture was also excellent.

ING: It's good I invited him to be the lecturer at the next meeting October 18, at the Wagon Wheel, the one in Mountain View.

ISQ: Pray tell, what will N6TV's lecture be about at the October 18 meeting at the Wagon Wheel in Mountain View?

ING: I heard that echo again.

ISQ: I say, what subject, among the 3076 subjects that N6TV is an expert in, will he be discussing?

ING: How To Be in The Top 10 in Your Neighborhood in COWW

ISO: It's a weener.

ING: I'll see you all at the Wagon Wheel next time for N6TV's comedy hour. Don't forget to tell 'em....DO NOT BE A 49er. And please, do send Honest Henry, KJ6LD, your 24 bucks today. Now don't bother me any more. I have to get back to 28375 to QRX for the ZA.

ISQ: I'll tell the MM's.



Tremendous success in eliminating RFI, TVI and Telephone interference using ferrite cubes is reported by N6TV and N6EK N6TV requests that anyone wanting to purchase ferrite cubes for eliminating (hopefully) RFI and telephone interference, contact him. He will buy the cubes in units of 88 each, for the purchse price of \$80. He suggests it may take that many to clean up your neighborhood. Note: these ferrite units are half cubes, so it takes two of them to make your cube. The two halves are then taped together after wrapping the turns. Also available from Good Old Bob are larger cubes for RG8U type TV line. These are priced at \$3.50 each, but they are now out of stock, Call N6TV to order either cube.

Fe3O4 PROBLEMA. The amateur press notices all said to send your ZA1A QSLs to Box 1, Los Altos, or to the bureau via W6OAT. But I listen to Martti saying to QSL to W6OAT. Poor Rusty! He may have his water and electricity turned off before he can find and pay the bills buried amongst the cascade of QSLs pouring through his front door.

From N6EK's Award's Desk. Is your 5 Meg Award falling apart? On the older plaques, the engraved metal was attached to the plaque with double-sided sticky tape which tends to loosen with time. On the newest plaques, small brass screws are used for attachments. If you received an older style plaque and would like it upgraded, contact Jack at Alpine Awards in Concord (510) 671-2079. He said he would fix older plaques and mail them back to us for free. Mention the NCCC and let me know if there is any problem. de N6EK

Thanks to Ken, K6PU, for sending NCCC the attached OP-AID printed in this issue. This OP-AID will work for all of the NCCC area, and should be useful in the forthcoming CQWWs.

Ken can print these OP-AIDS for any location in the world, so he offers to make up one for individuals or groups going off on a CONTEXpedition. Call him for full details. Thank you Ken, for making this available for us all.

# Contest Analog Voice Keyer, Part 1 By Bob Wolbert, N6IP

This article describes a contest voice keyer circuit using the ISD10xx family of analog voice recorder ICs. The basic circuit provides message recording, playback, and addressing. Enhancements include a T/R switch, a STOP function, a CQ loop timer, and "CT" interfacing. Part 2 will describe improving signal-to-noise ratio, better microphone input schemes, and low power (battery) operation. All circuitry shown has been completely debugged and is on-line at N6IP. It will be battle tested during CQP '91.

# Analog vs. Digital Recording

Digital audio recording has been available for several years. Digital recording, used in CD players, takes audio, passes it through a low-pass anti-aliasing filter, samples it many times per second (44kHz for CDs), converts the sample into digital data, and stores it digitally. When played, the digital data is reconverted into analog and the rough edges are filtered. Digital recording tends to be memory intensive—a 60 minute capacity CD stores the equivalent of 600Mbyte of data. Digital voice keyers are commonly available; most use external memory. Recording quality ranges from poor to exquisite, depending on the sample rate (and available memory).

Analog audio recording differs from digital recording in that analog to digital and digital to analog conversions are unnecessary. Also gone is the high frequency clock, which can cause RFI. The analog recorder clock runs at about 8kHz, depending upon IC version. Like digital recording, the audio is sampled rather than continuously recorded, so anti-aliasing filtering is still necessary.

Both methods offer acceptable message length, fidelity, and flexibility for a contest voice keyer. The ISD devices, at the Amateur Radio club discount price of \$20, is the lower cost solution. As far as we are concerned, either system will make a workable keyer.

## ISD Analog Recorders

The ISD10xx family of analog audio recorders consists of three devices, ISD1012, ISD1016, and ISD1020, with the last two digits denoting total message

time in seconds. The three are interchangeable in our application, trading fidelity for message time. The "high fidelity" ISD1012 provides 12 seconds of 4.7kHz bandwidth audio, the 1016 has 16 seconds of 3.4kHz bandwidth audio, and the 1020 gives 20 seconds of 2.7kHz bandwidth audio capacity. The three devices use the same pinout and identical external circuitry. They are non-volatile thus need no back-up battery to retain stored messages. Total recording time may be segmented into up to 160 different messages, with messages of variable length.

# **Keyer Circuit Configuration**

The keyer circuit features four message memories and a STOP function. A latch keys the transmitter upon Message start switch closure until End-of-Message pulse (EOM) output. The transmitter is disabled during recording sessions. An interface is provided to allow computer control of the messages, and is compatible with "CT". A CQ loop with delay is controlled by a 555 timer, which is triggered by the EOM pulse. When the timer is activated, Message 1 will repeat with an adjustable 1 to 10 second delay. As drawn, the voice keyer is hard sectored, with each message lasting one-quarter of the total available recording time. The circuit may be custom re-sectored if you require differing message lengths or a different number of messages.

# **Contest Keyer Operation**

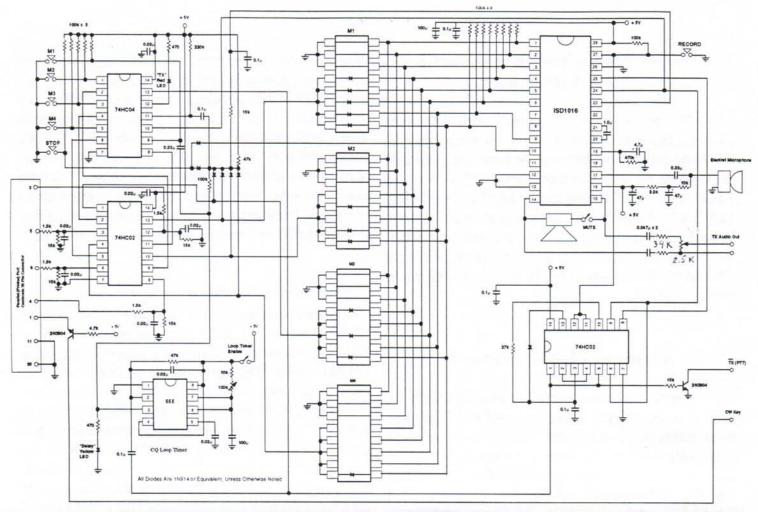
#### Recording

To record a message, apply power to the keyer. Press and hold RECORD, then press and hold the message switch (M1 or M2, etc.). Speak into the microphone and load your message, releasing the message switch when finished. Then release the RECORD switch. Repeat for the other three messages. STOP does not require loading.

## Playback

To play a message, momentarily press the message button. The message should be audible from the speaker. A speaker cut-off switch lets you disable the speaker to hear the audio from the transmitter monitor.

Caveat: you must manually time your recording session! Once started, the IC will record until you turn it off by releasing the memory switch or when it runs out of memory. For example, if you re-record message 1,



Schematic N6IP contest Voice Keyer

Full Page Schematic Available from N6IP

talking for 10 seconds, message 2 will be erased. Pressing M2 will now give you the last portion of message 1, starting in mid-message. I recommend you record your messages in order and play each one back, plus the next (empty message), to ensure you have not exceeded the message boundaries. If necessary, you may re-arrange the diodes to change the partitioning. Yes, you can have one 15 second message and three 300msec messages (with an ISD1016) if you wish. See "Message Addressing" for details.

## **Construction Notes**

#### RF & AF Noise

Since the keyer will be used in a high RF environment, the design must be RF-proof. This means the device must ignore RF fields and not generate any RF noise itself. Fortunately, the ISD IC seems quiet and insusceptible even as an open board prototype.

Audio noise is another important consideration. Al, AG6D, reports that the internal AGC preamplifier is quite noisy. He replaced the preamp with an external opamp stage. Part 2 will discuss a low-noise preamp with ground isolation, so the keyer may be used with the station microphone and still remain connected to Kenwood transceivers\*. For now, noise control is implemented by careful layout. Pins 12 and 13 should be connected together, and this point used as a single point ground. Separate wires should run from the voltage regulator directly to Pin 28 (V<sub>CCD</sub>) and to Pin 16 (V<sub>CCA</sub>). AGC and audio coupling capacitors should mount close to the IC and have short leads.

\*Kenwood rigs require an isolated shield from the micro phone audio line and does not connect this shield to chassis ground (which is PTT ground). A diode matrix calls the starting address of each message. Positive logic is used, so the first address is 00000000. The last valid address is 10011111. By dividing the memory into four equal segments, we have:

| Memory | A7 | A6 | A5 | A4 | A3 | A2 | A1 | A0 |
|--------|----|----|----|----|----|----|----|----|
| 1      |    | 0  |    |    |    |    |    |    |
| 2      | 0  | 0  | 1  | 0  | 1  | 0  | 0  | 0  |
| 3      | 0  | 1  | 0  | 1  | 0  | 0  | 0  | 0  |
| 4      | 0  | 1  | 1  | 1  | 1  | 0  | 0  | 0  |
| STOP   | 1  | 0  | 1  | X  | X  | X  | х  | X  |

Since STOP is not a valid message address, the keyer halts. Diodes are used to pull the selected inputs low, one diode for each zero. Thus, message 1 uses eight diodes. message 2 uses six, etc. We do not need eight bits of resolution in this keyer, so we may delete diodes A0, A1, and A2, tying these address pins permanently low. In my prototype, I used 16 pin sockets with diodes installed in removable socket headers. The message 1 socket had all eight connections made so I could replace the diode header with a DIP switch for manually addressing any location for testing purposes. The header used wire instead of diodes for A0, A1, and A2 and the "cathode" side of the socket was permanently grounded for these three. Sockets for M2, M3, and M4 left the three connections open. The STOP address does not require a socket, and the diode is soldered in place.

#### **CT** Interface

The keyer has an interface for a parallel input compatible with "CT" and some other contest software. CT forces one bit momentarily high on the parallel port. This signal is received by one section of the 74HC02 Quad NOR gate, which starts the selected message. Input resistors provide some protection from spikes and noise and force the inputs low when the parallel port is disabled or unconnected. Function keys F1 through F4 start the corresponding message under "CT".

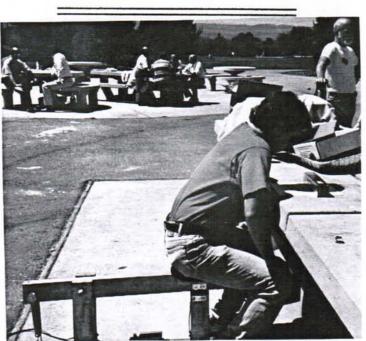
CW keying from the same computer parallel port is provided so no cable changes are necessary during mode swapping (for contests such as CQP, IARU, Field Day, etc., that allow both modes). Keying is positive polarity. For you "phone-onlies"—add the CW interface anyway. Just do it!

The venerable 555 timer is used as an adjustable loop delay. When activated, a delay time from one to ten seconds, set by the  $100k\Omega$  pot, determines the pause time between CQs. Upon 555 time-out, Message 1 is played. At the EOM signal following message 1, the timer is retriggered. To answer someone, disable the timer with its switch and push STOP, if necessary.

# Conclusion & Acknowledgments

This was a rushed project, with only one week from receiving parts to JUG deadline. The circuit has not yet been mounted in any sort of chassis; the schematic presented here has been tested but not optimized. It is offered so you may get an inexpensive voice keyer online in time for the 1991 contest season. Although some of the membership finds it easy to yak their way to a milliyun, us shy types need assistance. Hopefully, this keyer is that assistance. I wish to thank Al, AG6D, and Bob, N6TV, for their valuable input, and Joe Jarrett, K5FOG, applications engineer at ISD, for his guidance. Next time (next month?), I hope to present a more optimized, feature laden keyer.

Please feel free to dump any and all suggestions on me via packet or telephone (408) 258-1015 (Home)/ (408) 245-2500 ext. 415 (days). Go gettum in CQWW!



ANALOG VOICE KEYER, Bob, N6IP, shows he remembers CW, by winning the Fanny keying event at the August pichniche. (Foto N3AHA.)

October Jug Page 5

#### ACE'S SPACE

Quote of the month from our hard-working Veep ACE, N3AHA, "Make a meg for Olde CQP, and make a MILLI-YUN in COWW." That's right folks, it's MILLI-YUN point time again and our intrepid Veep is thrashing for points. Pay attention to his instructions as follows:

Send all your CQP and CQWW summary sheets to N3AHA, either by mail or packet. Ace will tally scores for submission to authorities and then send the summary sheets to AD6E to tally for your individual Five Meg Award. No need to send summary sheets to both N3AHA and AD6E. Send to AHA only.

Ace says the Five Meg award chairman is getting lonely and is QRX for more applications. The Five Meg is the most coveted NCCC award available to Louese's MM's. But you have to score points to make it. Begin planning how you are going to score a Milli-Yun and add to your Five Meg total--all at the same time.

Ace flings kudos and all that jazz to TOPOPS:

 N6TIB, highest club score ARRL DX phone, unassisted and Division leader.

2. NC7K, highest club score ARRL DX CW, unassisted

3. W1FEA, only west coast station in the top multi-op list.

4. NCCC finished eighth in medium cate-

gory, SCCC ninth.

5. N6TV, highest ARRL DX CW score and Division leader.

6. W6BSY, highest ARRL DX phone, unassisted.

7. N3AHA, highest ARRL DX phone, assisted and California leader.

8. NCDXC, with joint NCCC member support, finished third in medium category, behind North Coast Contesters and Mad River Radio Club. SCCC was 16th.

(Ed note: NCDXC could have been second if all NCCC scores had been turned in for NCDXC.)

#### CONTESTS COMING UP

| Oct 4-5   | CAL QSO PARTY       |
|-----------|---------------------|
|           | VK/ZL Oceania SSB   |
| Oct 5-13  | Wyoming QSO Roundup |
| Oct 12-13 | PA QSO Party        |
|           | IL QSO Party        |
| Oct 13    | RSGB 21/28 SSB      |
| Oct 19-20 | Worked All Germany  |
| Oct 20    | RSGB 21 CW          |

| Oct 26-27               | CQWW DX SSB     |
|-------------------------|-----------------|
| 140.000.000.000.000.000 | 10-10 CW        |
| Nov 2-3                 | SS CW           |
| Nov 9-10                | WAEDC RTTY      |
|                         | JA Int'l DX SSB |
|                         | OK DX CW/SSB    |
| Nov 16-17               | SS SSB          |
| Nov 23-24               | COWW DX CW      |

#### TROSTEROSTER de W6ISO

Henry's Honkings will give the official report of the BOD meeting These are a few unofficial meaderings about the membership meeting, September 20 at Hewlitt Packard on the hill in Palo Alto.

A matter of great concern to the club and to hardworking, Honest Henry, KJ6LD, our revered Treasurer. was that 49 members have not yet renewed their membership. This was also cause for alarm in high places as detailed in Breeze From Louese. If you have a RED X on your mailing label, you still owe your \$24 dues. Plesase restore the happy smile to Honest Henry's face...if you can find it through all the whiskers. We all thank you.

Some of you will remember the interesting talk at the DX club about an analog voice machine. Well, NoIP and AGOD each built one. AGOD left his home, but N6IP brought his custom-chassis model along for a demo. Way to go, Bob! An impressive job. Even sounded like him. What's more, in order to give JUG readers the scoop before contest time, he stayed up until wee hours to finish Part I of his analog adventures by press time. Hope you'll all be able to add one to your contest gear. Our hearty thanks, Bob.

Round table chatter gave everyone a chance to say where he/she would spend CQP weekend. We need a few extra counties. Everyone is going someplace, even home-except ACE, N3AHA. Seems Ace is forced to attend yet another wedding back east over CQP weekend. He must have been the most popular fella on campus because they all want Ace to come to their weddings. W6CF and I will forgive him if he mobiles through West Virginia and gives us eight or nine of the counties we still need.

Welcome to new member Jim, KB6JS from Sam Hosay. And welcome back to Bob, N6OXR (ex. WB6NPZ), and to "Node" Bob, KN6J, one of the original Young Turks who founded NCCC. They paid their dues and are now official. Thank you all, 49ers, rejoin the fold. Send your dues today!

(TrosterRoster con't on page 7)

(TrosterRoster con't from page 6)

Mr. Robert's Rules, W6RGG, narrated a fine slide show of pictures taken by Bill, N6OP at the K6ZM Field Day pichniche operation.

N6TV flashed up on his computer screen, an absolutely terrific demonstration of GEOCLOCK, a software program which displays either a mercator or polar projection, centered on your QTH, of daylight and darkness plus the gray line. The daylight-darkness areas move with time. A spectacular, eye-catching, and useful display. Perhaps N6TV would be willing to demonstrate this unique software for others. Ask him. Bob says the programs are available from Joseph R. Ahlgren, 2218 N. Tuckahoe, Arlington, VA 22205. Cost is \$30 for the standard Mercator map and another \$30 for the polar projection. Total, 60 bucks for both presentations. Include your latitude and longitude. If I ever get get a "real" computer, as IBM Bob refers to a certain brand, I'm gonna git me one a' them!

For laughs-that-hit-home, ha ha, N6TV gave us his David Letterman-type, Ten Excuses for Not Making the Top 10 in CQWW in Your Neighborhood. (JUG had to have it-- see elsewhere in this tabloid). Bob then continued to amaze us with a demo of another new program. This one written for CQP by Ken, K1EA. He will be rewarded with a magnum of Napa Valley's best, specially selected by our own lil' ole winemaker, Bruce, W6OSP. What's more, the bottle will be computer-labelled by print-meister Bob, N6EK, with a personalized label of thanks.

Andy, AE6Y, then demonstrated his own CQP logging system which was also an amazing and excellent must-have for contestors. Both programs were available to anyone present who brought his own disc for transfer. If there is time before CQP, N6TV could probably supply both programs to those who missed the meeting and would like to have them.

# HENRY'S HONKINGS

de KJ6LD, Sec/Treas.

The NCCC BOD meeting was held on Friday, September 20, at 6 PM, prior to the membership meeting. Ace, N3AHA, Jim, WA6SDM, and Henry, KJ6LD were present.

 The next meeting will be held on October 18, at the Wagon Wheel in Mountain View: Gather for refreshments 6-6:30, eat 7-7:30.

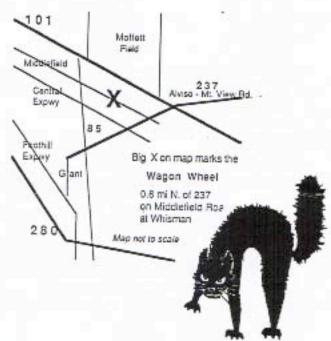
Next meeting's program will be given by Bob N6TV and others. The subject will be how to do well in the CQWW contests.

#### NEXT MEETING

FRIDAY, OCTOBER 18
WAGON WHEEL, MOUNTAIN VIEW
GATHER AT 6 PM EAT AT 7 PM
PROGRAM: BOB WILSON, N6TV
HOW TO BE TOP TEN IN CQWW
DINNER: CHICKEN, FISH, or STEAK
\$15.00

Including salad, dessert, tip, and tax

#### Map to Wagon Wheel in Mountain View



NCCC Treasurer's Report

July 1, 1991 through September 20, 1991

|                           | BUDGET       | TO DATE    |
|---------------------------|--------------|------------|
| Membership Dues           | \$3,000.00   | \$2,050.00 |
| Donations                 |              | \$838.00   |
| JUG and Roster Ads        | \$670.00     | \$0.00     |
| JUG and Roster Publishing | (\$1,800.00) | (\$521.69) |
| CQP                       | (\$1,000,00) | (\$366.24) |
| Membership Awards         | (\$1,000.00) | (\$126.11) |
| Visalia Hospitality       | (\$200.00)   | \$0.00     |
| Self-funding Events       | \$0.00       | (\$65,28)  |
| Sponsored Awards          | (\$150.00)   | \$0.00     |
| Contingency Fund          | [\$200.00]   | \$9.30     |
| Total                     | (\$680.00)   | \$1,617.96 |

Notes:

As of September 20, 1991, the balance in our Wells Fargo checking account is \$2394.36. (The repeater fund does not belong to the club; I will no longer include it in the Treasurer's report.)

Respectfully Submitted, Henry Stewart, Secretary/Treasurer, KJ6LD 8/26/91

HERE IS N6TV's LIST OF COUNTIES WHICH SHOULD BE ON THE AIR FOR CQP. Note: Bob still needs stations in three counties. Can you find a friendly mobile or a friendly operator in those counties to get on this weekend for CQP?

| County                 | Station(s)         | Orange          | N4ARO/6(lim.)            |
|------------------------|--------------------|-----------------|--------------------------|
|                        |                    | Placer          | W6RFF(lim.), W1FEA?,     |
| -mobile-               | N6NKN, WN4KKN      |                 | N6UUG                    |
| Alameda                | N6EK, K6XV         | Plumas          | KD6VM(lim.), KF7AM/6     |
| Alpine                 | KI6OS, W6TVP, N6AU | Riverside       | W6EEN, W6TKV, WA6FIT     |
| Amador                 | K6BPB, K6PU        | Sacramento      | W6GO(N6IG)               |
| Butte                  | NODJJ              | San Benito      | KG6GF(m/s)               |
| Calaveras              | K6RK               | San Bernardino  | WA6FGV(lim.), W6HAL,     |
| Colusa                 |                    |                 | N6WIN                    |
| Contra Costa           | K6PJY, N6RO        | San Diego       | K6XT(KI6ZH), N6BIS       |
| Del Norte              | K6HY, K6AAW        | San Francisco   | N1EE                     |
| El Dorado              | W6SUN              | San Joaquin     | W6FAH, KJ6DL, N6OP       |
| Fresno                 | N6GJI              | San Luis Obispo | The second second second |
| Glenn                  | NODJJ?             | San Mateo       | W60AT, W6ISQ             |
| Humboldt               | W6JTI              | Santa Barbara   | N6GC(lim.)               |
| Imperial               | AA6PC              | Santa Clara     | N6TV, KJ6LD, WA6SDM      |
| Inyo                   | N6BT               | Santa Cruz      | Nest                     |
| Kern                   | N6BT               | Shasta          | KC6YLE                   |
| Kings                  | N6BT               | Sierra          | W6JEX, N6JM              |
| Lake                   | W60WQ              | Siskiyou        | WA60ZZ(lim.)             |
| Lassen                 | K6JKC              | Solano          | K6HIH, N6WVF, WX6F,      |
| Los Angeles            | N6HC, W6UE(OTU)    |                 | KJ6JF,W6ROY              |
| Madera                 | KD6FW/KB6EEK, NB6L | Sonoma          | WB2CHO, KD6GC            |
| Marin                  | K6LRN              | Stanislaus      | KK6TE(lim.), WJ60        |
| Mariposa               | AA6QY .            | Sutter          | KI6CG                    |
| Mendocino              |                    | Tehama          | NODJJ?                   |
| Merced                 | N6ZB/KS6H, KI6PR   | Trinity         | N6IFW(or Calaveras)      |
| Modoc                  | W6REC              | Tulare          | W6IFC, N6BT              |
| Mono                   | W6TVP(lim.), N6AU  | Tuolomne        | N6AU, KI6PG, N6IP        |
| Monterey               | KK6ZO              | Ventura         | K6MP(lim.)               |
| Napa                   | W6OSP, W6FSJ       | Yolo            | N6YKL                    |
| Nevada                 | N6XI(lim.), WA6AUE | Yuba            | W6BSY                    |
| W 97042000 77 - 502 PO |                    |                 |                          |

| 1991 CALIFORNIA QSO PARTY  SPECIAL AWARD PRESENTED TO  KEN WOLFF K1EA |
|---|
| CALIFORNIA<br>QSO PARTY  SPECIAL AWARD PRESENTED TO  KEN WOLFF        |
| QSO PARTY  SPECIAL AWARD PRESENTED TO  KEN WOLFF                      |
| SPECIAL AWARD PRESENTED TO  |
| PRESENTED TO  KEN WOLFF   |
|   |
| K1EA  |
|   |
| FOR   |
| FOR   |
| SOFTWARE SUPPORT  |
| ABOVE AND BEYOND  |
| THE CALL OF DUTY  |
| OCTOBER 1991  |
|   |

| ЯНВАРЬ  |  | ФЕВРАЛЬ   |                      | MAPT  |
|---|--|---|----------------------|---|
| 7 14 21 28<br>1 8 15 22 29<br>2 9 16 23 30<br>3 10 17 24 31<br>4 11 18 25<br>5 12 19 26<br>6 13 20 27   | Па<br>Вт<br>Ср<br>Т<br>С<br>С<br>С<br>С<br>С<br>С<br>С<br>С<br>С<br>С<br>С<br>С<br>С<br>С<br>С<br>С<br>С | 4 11 18 25<br>5 12 19 26<br>6 13 20 27<br>7 14 21 28<br>1 8 15 22<br>2 9 16 23<br>3 10 17 24          | E B C D T C C B C    | 4 11 18 25<br>5 12 19 26<br>6 13 20 27<br>7 14 21 28<br>1 8 15 22 29<br>2 9 16 23 30<br>3 10 17 24 31 |
| АПРЕЛЬ  |  | МАЙ   |                      | июнь  |
| 1 8 15 22 29<br>2 9 16 23 30<br>3 10 17 24<br>4 11 18 25<br>5 12 19 26<br>6 3 13 20 27<br>7 14 21 28  | E B C 7 E C B  | 6 13 20 27<br>7 14 21 28<br>1 8 15 22 29<br>2 9 16 23 30<br>3 10 17 24 31<br>4 11 18 25<br>5 12 19 26 | ##87F8#              | 3 10 17 24<br>4 11 18 25<br>5 12 19 26<br>6 13 20 27<br>7 14 21 28<br>1 8 15 22 29<br>2 9 16 23 30    |
| Кострома.<br>Ипатьевский мо<br>Основан в XIV г  |  | 1   | R                    | NEC   |
| District Transfer of Contract |  | ABFYCT  |                      | СЕНТЯБРЬ  |
| Ипатьевский мо<br>Основан в XIV г   |  |   | ರ ಕ್ಷಾತ್ರಿಕ್ಕಿತಿಕ    |   |
| Ипатьевский мо<br>Основан в XIV и<br>ИЮЛЬ<br>1 815 22 29<br>2 916 23 30<br>3 10 17 24 31<br>4 11 18 25<br>5 12 19 26<br>6 13 20 27  | E B C T C C  | ABFYCT  5 12 19 26 6 13 20 27 7 14 21 28 1 8 15 22 29 2 9 16 23 30 3 10 17 24 31                      | BT<br>CP<br>TT<br>C6 | 2 9 16 23 30<br>3 10 17 24<br>4 11 18 25<br>5 12 19 26<br>6 13 20 27<br>7 14 21 28                    |

BOTO E. PRÉCISE CI - FLAVOREUS - MOCKES. 1990 /. Hag. No 1025-02816. 3 1811. T. 7750 000 ps. A-12679-89 /. U. b s. Ten. space - Koustynso-

W6RQ wants, you to have a handy wallet-size calendar of your very own.



# The Radio Amateur's Journal

September 1, 1991

Dear NCCC:

As you may know, I have run a survey in my September contest columns in CQ Magazine. In order to increase participation, I have enclosed a copy that I would like you to include in your next club newsletter. Another alternative would be to pass it out at an upcoming club meeting.

In any event, anything you can do would be greatly appreciated!

73's

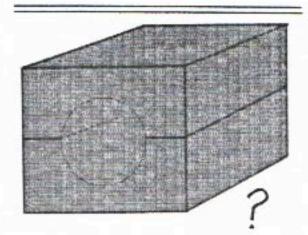
AR. KIAR

(Signed) John, K1AR John Dorr, K1AR 2 Baldwin Street Windham, NH 03087 603-434-5661—home 508-967-1095—work 508-967-4505—FAX

#### Your editor adds:

Please copy John's Questionnaire and answer it. Do not dare to tear it out of a perfectly good JUG. Copy it! Here's a great chance to get your opinion to someone of stature who is working on ideas of interest to all. That will get you someplace. It's your chance to sound off. Don't never complain no more if you don't take advantage of this chance to speak. You won't get this opportunity to speak out in the JUG, the editor does not allow dissent. Give John a good input from W6-land,

Say you saw it in the JUG See Questionnaire next page.



# QUESTIONNAIRE FROM CAC MAN JOHN, K6GSS

Our Pacific Division Contest Advisory Committee person John, K6GSS, also would like some input from NCCC covering ideas about allowable operating time in contests. This is becoming an issue, as you know from articles in NCJ. The questions he poses may have to be voted on soon, but let's each of us pass along our thoughts. Don't complain if matters are not voted your way unless you have expressed your ideas. You're invited also to add thoughts on other contest topics as you wish.

# N6TV GIVES TOP TEN EXCUSES FOR NOT MAKING TOP TEN

- 10. The dog ate the coax.
- Neighbors complained about interference to "Big Time Wrestling"
- 8. Thought KG6GF was a new multiplier
- Got a migraine listening to W6RGG
- Smoked amplifier while attempting to compen sate for feedline losses
- 5. Worked too many dupes
- Worked too many dupes
- 3. Computer only saved every other QSO
- 2. Fell asleep after first five minutes
- 1. It was time to give someone else a chance



NCCC COMMANDERS: BOD Bob, N6TV; VP Ace, N3AHA; Sec/Treas, Henry, KJ6LD; Pres, Louese KA6ING, (Foto N3AHA) October Jug Page 9

# Contesting Survey: Inside the Mind of Today's Contester

|    | r Callsign (optional):  |  | Contesting Experience (years):                 |
|----|---|--|--|
| 1  | n a few words, what is the single   | e most important issue facing contesting   | today (e.g., lack of new blood, ethics, etc.)? |
|    | Do you think the sport of contes  | ting will continue to improve over time, or  | have we seen the best?                         |
|    | What is the age of the youngest Youngest: Olde  |  | know? (Approximate answer is acceptable.)      |
|    |   | nas changed about your ability to operate  | ?  |
|    | a   |  |  |
|    |   |  |  |
|    |   | ng anything about bringing more youth int  |  |
|    | Is contesting an asset or a liabil  | ity for amateur radio?   |  |
|    | ☐ Asset ☐ Liability   |  |  |
|    | Has the integration of technolog  | av into contesting gone too far?   |  |
|    | YES   NO  | gy mic comosting gene too tall.  |  |
|    |   | ure of contesters is germane to other area   | as of life (e.g., career, other hobbies,       |
|    |   |  |  |
|    | □ YES □ NO  |  |  |
|    | □ YES □ NO  | n your most memorable contest experienc  |  |
|    | ☐ YES ☐ NO  In one sentence, what has been operation at W2PV)?  What other hobbies do you enjour.   |  |  |
| ). | □ YES □ NO In one sentence, what has been operation at W2PV)?  What other hobbies do you enjour.  | by outside of contesting/amateur radio?  | e (e.g., participating in the last multi-multi |
| ). | □ YES □ NO In one sentence, what has been operation at W2PV)?  What other hobbies do you enjour.  | by outside of contesting/amateur radio?  | e (e.g., participating in the last multi-multi |
|    | □ YES □ NO  In one sentence, what has been operation at W2PV)?  What other hobbies do you enjour a.  b.  What percentage of your vacations are sentenced by the sentence of your vacations are sentenced by the your vacation | by outside of contesting/amateur radio?  | e (e.g., participating in the last multi-multi |
|    | □ YES □ NO  In one sentence, what has been operation at W2PV)?  What other hobbies do you enjour.  b  What percentage of your vacation.  Dxpeditions, etc.)?  | by outside of contesting/amateur radio?  | e (e.g., participating in the last multi-multi |
|    | □ YES □ NO  In one sentence, what has been operation at W2PV)?  What other hobbies do you enjour a  | by outside of contesting/amateur radio?  ion/holiday time do you use for contesting  25-50%  50-90%  | e (e.g., participating in the last multi-multi |
|    | □ YES □ NO  In one sentence, what has been operation at W2PV)?  What other hobbies do you enjour a.  b.  What percentage of your vacation of  | by outside of contesting/amateur radio?  ion/holiday time do you use for contesting  25-50%  50-90%  | e (e.g., participating in the last multi-multi |
|    | □ YES □ NO  In one sentence, what has been operation at W2PV)?  What other hobbies do you enjour a  | by outside of contesting/amateur radio?  ion/holiday time do you use for contesting  25-50%  50-90%  uter support while operating?   | and related activities (e.g., antenna work,    |
|    | □ YES □ NO  In one sentence, what has been operation at W2PV)?  What other hobbies do you enjour a  | by outside of contesting/amateur radio?  ion/holiday time do you use for contesting  25-50%  50-90%  uter support while operating?   | and related activities (e.g., antenna work,    |
|    | □ YES □ NO  In one sentence, what has been operation at W2PV)?  What other hobbies do you enjour a.  b.  What percentage of your vacate DXpeditions, etc.)?  □ less than 10% □ 10-25%  Do you use some form of computes □ YES □ NO  Given the right set of circumstate eventually win the Single Operations.  | ion/holiday time do you use for contesting  25-50%  50-90%  uter support while operating?  ances (e.g., best station, access to good of ator category in a major DX contest? | e (e.g., participating in the last multi-multi |

#### John Hultquist, K6GSS 188 Noe St. Kihei, HI 96753

For those of you who don't know, I am the ARRL Contest Advisory Rep. for the Pacific Division. Last year everyone was trying to see how much they could spend on mail, (well over 100 letters exchanged) and this year I get about one letter a month of committee correspondence. Right at the top of the subjects of discussion is the length of contests. It seems alot (the vocal minority I hope) is being said about contests being too many hours in length. This is usually preceded by the particular writer saying something about his age. Anyway, I would like to get a straw vote from the NCCC about the length of major contests. Tell you what, lets include some minor ones too, ARRL DX, SS, FD, and any other ARRL contests NCCCrs like. Are they too long, too short, or just right?

And then there is the plaque program, a true Pandora's box. Two years ago we had a volunteer offer a Plaque for a particular class in SS. Well, it still is not a reality due to some politics I fail to understand. At the same time, without involving the CAC, a top ten plaque program was started for the June VHF contest. Basically, the VHF program gives plaques to the top 10 nation wide in single-op, multi-op, and I believe QRP

(I would have to re-read the announcements to be exact). This program does not recognize Division Winners, which I think it should. They are also looking for plaque sponsors as several of the VHF plaques are unsponsored (I think that is a hint as to the unsuccess of the VHF plaque program).

Well, enough for now, it is now Mon. the 23rd., and last evening I heard RI6CG and W6REC work ZALA, but never heard ZA standby for the Pacific.

Another item on the local front. The Maui Amateur Radio Club sponsors the CQWW CW Single Op Oceania Plaque, and this year it was approved by only one vote. I'll have to stack the meeting for next years approval, hi.

Is there a NCCC HF net these days, and if so, time and freq. so I can checkin.

73, ALOHA, and KB

John KEGSS/KHE

#### New Member

Jim Moyer KV6S 6381 Wisteria Way San Jose, CA 95129 H. 408 255-2266 W. 408 730-3444

#### Reinstatements

Bob Summers N6OXR 35825 Augustine Place Fremont, CA 94536 H. 510 790-3274 W. 415 961-1473

When Bob was a member, his call was WB6NPZ Bob Artigo KN6J 18360 Knuth Road. Los Gatos, CA 95030

W. 415 961-1473

Bob was one of the founding members of the club

October Jug Page 11



#### KENWOOD

## TS-450S

HF Transceiver



12v 100w, Gen. Cov. Receiver 100 mems. • 108DB Dynamic Range DDS • DSP Optional • Dual VFO Optional Built-in Auto Antenna Tuner

#### KENWOOD

TS-850

HF Transceiver



Advanced Technology Performance 108 db Dynamic Range, Optional DSP

# **YAESU**

FT-990



100W HF Gen Cov Transceiver DDS, QSK • 500Hz CW Filter included

# - NEW LOCATION! NOW IN SUNNYVALE -

# ACROSS EXPRESSWAY FROM FRY'S ELECTRONICS

NEW ADDRESS! SUNNYVALE, CA 94086 510 Lawrence Expressway \$102 (408) 736-9496 (800) 854-6046 Torn, KBSLUC, Mgr OAKLAND, CA 94606 2210 Livingston St. (510) 534-5757 (800) 854-6046 Rich, WA9WYB, Mgr I-880 #1 23rd Ave. ramp West 1-800-854-6046

Store Walk-In Hours: 10:00 AM to 5:30 PM Closed Sundays

# 11 STORE BUYING POWER

October 1991 JUG NCCC 44 Toyon Terrace Danville, CA 94526

FIRST CLASS



RUSTY EPPS W60AT 651 HANDLEY TRAIL REDWOOD CITY, CA 94062