

# The Contest JUG



NEWSLETTER OF THE  
NORTHERN CALIFORNIA CONTEST CLUB  
44 TOYON TERRACE  
DANVILLE, CA 94526  
JANUARY 1987  
NO. 175

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K6ZM, PHIL; KA6ING, LOUESE

NCCC REPEATER, W6R66, 147.24, NET EVERY WED. 8:00 PM

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## NEW YEAR CONTEST SEASON

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### COMING EVENTS

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JANUARY 23-25 CQWW 160 M CW CONTEST  
JANUARY 24-25 "73" 40 & 75 SSB CHAMP CONTEST  
JANUARY 24-25 FRENCH CW CONTEST  
JANUARY 26 NCCC MEETING 7:30 PM HAYWARD  
JANUARY 30-FEB 8 ARRL NOVICE ROUNDUP  
FEBRUARY 8 NORTH AMERICAN CW SPRINT  
FEBRUARY 15 NORTH AMERICAN PHONE SPRINT  
FEBRUARY 20-22 CQ WW 160 M SSB CONTEST  
FEBRUARY 21-22 RSGB 7 MHz CW CONTEST  
FEBRUARY 21-22 ARRL DX CW CONTEST  
MARCH 7-8 ARRL DX PHONE CONTEST  
MARCH 28-29 CQWW WPX SSB

### FROM THE PREZ

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For those who could not make it, the NCCC Xmas Dinner was a smashing success due in part to the splendid efforts of Tom, N6BT, Louese, KA6ING,

Larry, KD6XY, Chuck, W7MAP, and Ron, NV6Z. The slide show of NCCC member's station was great- next year the bashful ones may even bring slides!

At the January NCCC meeting, Howard, WZ6Z, will show slides and tell us all about KP2N- that "big" station on during CQWW CW. On the other hand, Scott, N1EE, will also have slides and tales to tell about his venture as C6ADR in the 1986 ARRL CW. (Reuben, don't stay away from the meeting, they won't give the presentations in code!).

Congratulations to George, KI6CG, for winning the Pacific Division section, and highest score in California, in the 1986 ARRL September VHF QSO Party.

By the way, Duane, W6REC is sending out a letter to various Ham Clubs in Northern California asking that they print that letter in their local newsletter promoting the NCCC as a club to join if one is interested in Contesting. Duane would like some feedback as to names and addresses of various clubs in Northern California that should be targeted.

Although the NCCC encourages dual members in the NCCC/NCDXC to submit their ARRL DX scores to the NCDXC, if you are not a dual member the NCCC will take your score and submit a club score for the NCCC. Scores that are going to be credited to the NCCC should go only to Chuck, W7MAP. The W6TI repeater will be used during ARRL DX and everyone is welcomed to join the spotting net (check with WC6I or KA6ING).

The future contesters have their shot at it this month in the ARRL Novice Roundup. It's a week long event, so why not try to give these stations a slice of the real thing (pile ups) and work a few.

73, Al, WR6R

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### **FROM THE VICE PREZ.....**

I would like to take a few words to wish everyone a happy and prosperous New Year. Suffice to say that we all hope 11987 is as good for you as 1986 was to our family.

Occasionally something special happens in the World of contesting and all too often it goes by unnoticed. In this case I would like to make special notice of a super achievement. In the 1986 CQWW CW contest, from N6RO, Gary Caldwell (WA6VEF) posted the highest single operator score ever produced from California. This during a solar minimum...please join the JUG staff and Board in congratulations to Gary - a job well done!

Due to the deadline of the JUG and CQWW CW being coincidental, I will publish the Club 1986 CQWW results and standings for the 5 million point award in the February JUG. For those of you interested in the 5 Megapoint award that have not sent in CW summaries, please do. I will use the Club entry summaries for CQWW and Sweepstakes already received, but any other contests that you would like to claim for credit please forward summaries.

It looks like Duane, W6REC, has agreed to coordinate the FEB 1987 NCJ Sprint Contest. Let's all get behind Duane for another good showing.

ARRL DX is rapidly approaching. Traditionally we have supported the NCDXC in their quest for the North/South Trophy. If you have any desire to find a station to operate from or are looking for operators, please feel free to call me at work or home and I will act as coordinator for these activities.

CQWPX is another NCCC entry contest this year, last year we had a great turnout (Ed. Highest Club Score in the World) and a lot of fun was had by all. I would like to hear from those of you interested in operating or helping with the "let's get out the Q's" effort please call me. This contest has all of the excitement of a DX contest and the rates of a good domestic contest-the best of both worlds. Lets keep a tradition alive and join in the fun!

73, Chuck, W7MAP

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## **ARRL SWEEPSTAKES SCORE RUMORS**

**HIGH POWER**

**W7EJ**

**SSB**

**1883/74**

<b>WS4Q</b>	<b>1839/74</b>
<b>N6DD</b>	<b>1803/74</b>
<b>WC6R</b>	<b>1800/74</b>
<b>N2IC</b>	<b>1773/74</b>
<b>K0BB</b>	<b>1702/74</b>
<b>W7DR</b>	<b>1656/74</b>
<b>N5AR (WB5BZL)</b>	<b>1628/74</b>
<b>K4DR/O</b>	<b>1628/74</b>
<b>W3LPL (WB4RHM)</b>	<b>1617/74</b>
<b>R1GB</b>	<b>1600/74</b>
<b>N6BT (WB6DEF)</b>	<b>1596/74</b>

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## Propagation, ETC, .

Even the big stations like N6RO cannot make this stuff, so here is a refresher course taken from notes on a talk given by an expert contester, W3LPL, given at the 1986 Dayton Hamvention Antenna Forum as well as hints about being just plain louder!

During the evening hours, the D-layer disappears so that source of absorption goes away and signals increase in strength. On the other hand, the E-layer never goes away, but the MUF goes down during high solar years to around 2 MHz, which produces absorption on 80 and 160 meters. During the low sunspot cycle, the MUF can go lower than 160 meters, and signals can go way up.

As we all know seasonal changes effect the bands. For example, 20 at night during the summer and daylight hours during the winter are the prime hours for this band. Why? The reason is absorption. In June on 20 at 8:00 AM the absorption is equivalent to what it is at noon in December. The reason for this is the angle of the sun- it's higher in the sky and therefore the ionosphere overheads receives greater radiation, and thus more absorption.

In the summer at night, the absorption goes away. The D-layer goes away and the E-layer MUF drops down to around 2-3 MHz. The F-layer has enough ionization in it so it will normally refract signals on 20. This makes signals on that band strong. What is good news is that summer

## NCCC SPRINT TEAMS

One again the NCCC will field teams in the North American Sprint. W6REC, Duane, will be responsible for the management. If you cannot operate and are on a team, please notify Duane and he will put some else in your slot. You do not lose your spot for the next Sprint if you notify Duane. The final teams will be submitted to NCJ 24 hours before the contest, so please help Duane. He will be 2 meters , so get a hold of him on that mode and save a phone call!

Remember, if you want to be on a team notify Duane before the contest Also, you must send in a log to the NCJ to keep your ranking on a NCCC team.- send a copy to W7MAP so it can get published in the JUG.

NCCC members are asked to get on 30 minutes prior to each contest on 3815 kHz to get warmed up- check in after the test to give out scores.

JANUARY QST has all the rules for this 4 hour contest .

NCCC CW Team	NCCC CW Team 2	NCCC CW Team 3	NCCC PH 1
WA6VEF	K6LRN	N6BT	WA6VEF
N6XI	K6ANP	N6AUV	W6REC
W6SZN	AD6E		WR6R
W6OAT	K6ZM		K6ZM
AJ6V	WW6D		K6XO
N6GG	NV6Z		K6LRN
WA6AUE	W6REC		K6CSL
KA6W	N1EE		WX6M
K6XO	N6EK		AJ6V
K4TKM	K6CSL		NV6Z

months on 20 are not affected by the solar cycle, it just every other band that seems to be at the mercy of old sol! As such, 20 during the summer months will be just as good this year as it will be in the next three years.

The bigger the antenna and the higher you can get it is and old slogan that is not always useful for contesting. On 10 meters, the MUF really affects this band; absorption and the LUF are rarely problems. What happens is that for tall antennas, each "hop" is very long, which produces a signal in Europe, but little into the Caribbean. Thus for SS, if you are on 10 with a high antenna, you will skip over the most of the U.S.A. and have a poor score compared to the same antenna at a lower height.

Okay, what height should the antenna be for contesting. Well, the lowest angle of radiation that is useful is about 3 degrees. On 10, that means a height of 140 feet. Don't run away yet! If you have the same antenna at merely 50 feet, a common height for tribanders, you will be 6 dB down from the same antenna at 140 feet. If you now have a linear with 500 watts output, and replace it with a 1000 watts output linear, you will now be down only 3 dB from the 140 foot antenna. Remember that the lower antenna will be stronger then the higher into the U.S.A. and Carribean- this causes N6RO to switch to a low antenna to work the Caribbean.

For 15 meters, 6 dB down from the 3 degree radiation angle occurs at 60 feet. What easier to be louder, a 150 foot tower in your backyard or a KW output linear sitting on your desk hooked up to an antenna at 60 feet?

On 20, useful angles are between 8 to 15 or 20 degrees with optimum heights around 80 to 100 feet.

Keep in mind that the difference between a 3el tribander (like a TH-3) and a large tribander (like a TH7DXX) is greater then 3dB, and you only get 3dB when you go from 500 watts to a kw output! So power is not the only way to be loud.

On 40 where absorption is a serious factor during daylight and less at night, to produce high angles in order of 25 degrees you need an antenna at about 80 to 100 feet. At night, 140 to 200 feet is not too high.

You can see why those designing antenna systems that cannot put up antennas higher then 100 feet use verticals to get low angle radiation on 40 and 80- it's cheaper too!

## **NEL - TECH DVK- 100 DIGITAL VOICE KEYS**

( Product review by Marty Woll, N6VI)  
(Reprinted from Nov/Dec SCCC Newsletter)

The phone contester can now add to his arsenal the equivalent of a memory keyer. Nel - Tech has taken digital voice storage technology, already in widespread use in voice mailbox systems, and built a compact package for amateur use. My chance to use the new device came during the JY7Z operation in the 1986 CQWW Phone Contest.

### **Layout and interconnect**

The DVK-100 goes in series with the microphone lead to the transmitter and with the external PTT (e.g., footswitch), if one is used. Interface cables for any of several popular rigs are supplied by Nel-Tech. Power comes from an outlet mounted adaptor (supplied). The front panel, which is horizontal, is divided into three sections: memory, control and audio. Four memories are available: one at 16 seconds, one at 8 seconds and two at 4 seconds each. control switches let you record or play, check your messages or go live. The audio section has selectable 3 dB of compression, monitor ( with external speaker) and end of transmission tone generator.

### **Operation**

The DVK- 100 works just like a typical memory keyer. You switch to "record", hit the desired memory switch, start talking and hit it again when you're done. Repeat the process for each additional memory you want to program. Switch to "play", put your rig on VOX or let the DVK-100 trigger the PTT for you, push the desired memory button and hear your golden tones being transmitted. The sound comes out just as would a tape loop but with no machine-generated noise whatsoever. A touch of either the memory button or PTT can stop mid-message. A message can be changed in about the the time it takes to speak it ... very flexible.

## Weaknesses

Controls utilize a membrane keyboard which is sometimes hard to activate and which provides no tactile feedback. You may find yourself trading sore tonsils for a sore finger by the end of a long contest. Tactile microswitches would be an improvement. There is no provision to remote the memory switches. You can probably kiluge it (not yet tried), but Nel-Tech should provide a jack for this purpose. If they do, then I can live with the existing panel switches, which would be used less often. There is also no "repeat" function: this would be very useful on the 16 sec=cond memory (providing a continuous CQ/ listen cycle without constant button pushing). Finally, despite the manufacturer's efforts, it is possible to get too much RF into the unit. This occurred at the 20 meter position at JY7Z, so the 20 meter op, N6TJ, who owns the unit tested, couldn't use it. I had no such problem on 80 meters, hence I'm the one writing this review.

## Conclusion

The DVK- 100 is priced around \$350, a fair piece of change. Was I glad I had it? Definitely! Would I run out and buy one?

Probably not, until the improvements suggested above have been made. I'll stick with my tape loop for now, but the DVK -100 and similar units will probably become standard equipment one of these days and I expect I'll end up owning one.

## FCC NEWS

"The ARRL will write the FCC to request information concerning the new FCC policy under which amateurs may be placed on "reduced power hours" in cases where RFI has been reported. The letter will ask the Commission specifically about the regulatory foundation for the new policy." (ARRL Letter, 09/02/86).

Denial of ARRL's petition to require labeling of home electronic devices as to their susceptibility to Radio Frequency (RFI) was upheld by FCC Action on 10/06/86. The implication to the public that such labeling would be an assurance of the proper functioning of such devices was one of the reasons given for denying the League's petition.



## **ROTOR REBUILDS**

BY RICH ASSARABOWSKI, K1CC

( Reprinted from the Murphy Message)

I just got my rotor back from Craig's Antenna and Tower Service in Ohio and would like to recommend him if you have any rotor work to be done. I had a Ham - II rotor around which I was planning to use for sidemounting my 40. Having never used it myself, I took it apart and although everything appeared to be in good shape, it was obvious that the bearings needed to be replaced. This is not a very difficult job, but being pressed for time, I remembered a flyer I had picked up at Dayton. From my conversation with him it was obvious Craig had a lot of experience with these rotators. For \$ 20 labor, he disassembles the rotor, buffs the bearing surfaces, greases everything, checks all the parts, replaces anything required, and repaints the housing.

For \$ 2 in parts he replaced the corroded terminal strip and I decided to also replace the cast pinion gear with a stainless one used in the new Ham -IV's for another \$12. Shipping was about \$5 each way. Because I needed the rotor ASAP, he very promptly returned it.

His address is : Craig's Antenna & Tower Service (C.A.T.S.) 7368 St. Rt.  
105, Pemberville, OH 43450 (419) 352-4465.

## **SILENT KEY- K2GL**

BUZZ REEVES, K2GL, died soon after celebrating his 80th birthday at his N2AA superstation . Buzz practically invented multi-multi contesting and disciples of his ideas have populated MM stations across the country.  
( The DX Bulletin)



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