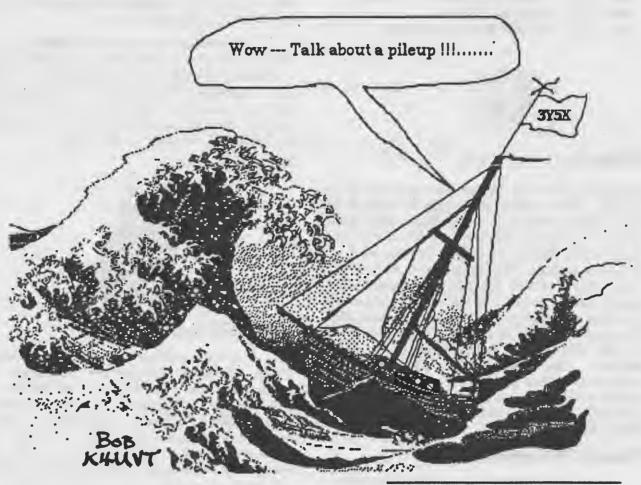
THE

March 1990



DXer

VOL XLIII - NUMBER 3



"Inter-Island Sailing" from WetPaintTM Island Life. © 1986-8 Dubl-Glick Software, Inc.

The NCDXC DXer

March1990

VOL XLIII - NUMBER 3

March Events

Mar 3-4 - ARRL International DX Contest (SSB)

Mar 9 - NCDXC Meeting Palo Alto
Mar 9-11 - Japan International CW DX
Contest

Mar 10-11 - Commonwealth Contest Mar 17 - Ireland Activity Day

Mar 17-18 - BARTG Spring RTTY Contest

Mar 17-18 - Bermuda Contest

Mar 24-25 - CQ WW WPX SSB Contest



MEETING NOTICE

Friday the 9th will be the next meeting of the NCDXC. The meeting will again be held at the Royal Palace restaurant in Los Altos. The address is 4320 El Camino Real in Los Altos, 0.3 miles north of the intersection of El Camino Real and San Antonio Road. The meeting will start with no host cocktails at 6:00 PM. Sit down dinner will be served promptly at 7:15, with our program and business meeting getting underway about 8:30. The program should be an interesting one! Bruno, AA6AD, will present Astronomy --- My Other Hobby. Bruno will lead us through a short presentation that promises to reveal to us the wonders of the heavens and the cosmos, with slides provided by Chuck, AA6G and Gary, WB6EXW. Plan to be there !!

Visalia DX Convention

The 1990 International DX Convention is scheduled for April 6, 7, 8 (the first weekend in April). Pre-registration is \$40.00 and should be made payable to:

International DX Convention c/o Don Bostrom, N6IC

4447 Atol Ave. Sherman Oaks, CA 91423

Deadline for Pre-registration is March 23. Late registration is \$45.00. The Grand Prize will be the new Henry 3KD desk-top amplifier.

Gary Pesselt, WB6PSY for the SCDXC

Visalia DX Convention Golf Tourney

Just as a reminder, the "4th Annual International DX Convention Golf Tournament" is still planned to take place on Friday morning, April 6 at 0900, at the Valley Oaks Golf Course in Visalia, adjacent to the Grosvenor (Holiday) Inn convention site. The tournament will be an informal "best-ball" affair and will be organized into 4-some teams for play and lowest team score. We are going to get together with our fellow DX'ers from SCDXC and just have fun.

We already have several NCDXC members signed up to play in this event. If anyone else is interested in joining us, please contact me no later than Wednesday, March 28, so we can make the final arrangements with the course. I can be reached weekdays at (408) 752-3877 or evenings at (415) 967-8467, or on the PacketCluster.

73's de Ralph, AG6Q



RUSTY'S RAMBLINGS

We've got another new one! Last week the ARRL Awards Committee accepted the recommendation of the DXAC to add Walvis Bay, ZS9, to the DXCC countries list. They established the start date for contacts as September 1, 1977, the date on which administration of Walvis Bay transferred from Southwest Africa to the Cape Province of the Republic of South Africa. W3AZD will begin accepting cards for DXCC credit as of June 1, 1990. This addition removes one of the real anomalies of DXing. Up until now, contacts with Walvis Bay didn't count for any DXCC country at all—not Southwest Africa, not the Republic of South Africa, not anything! However, if you were one of

the ones who snagged ZS9/DK7PE in the ARRL CW DX Contest a couple of weeks ago, the League has given its blessing to go ahead and count him as a multiplier.

The bands are buzzing this week with rumors that the B's are coming: Bhutan (A5), Bangladesh (S2) and Burma (XZ). With a bit of luck, and depending upon who you believe, we just might find ourselves standing around the bar in Visalia toasting to success in having had three of the rarest bite the dust! According to The DX Bulletin's survey of the world's most needed countries, XZ ranks #2, S2 is #7 and A5 checks in at #9. And these standings aren't even adjusted to account for the recent activity from Bouvet (3Y) and Laos (XW) which surely will bump the B's up a bit! So, any way you cut it, make sure your radios and antennas are ready real soon.

Friday, March 9 will be a night for stars! Bruno, AA6AD has teamed with Chuck, AA6G and Gary, WB6EXW to present the program at the March NCDXC meeting. Their presentation, entitled "Astronomy -- Our Other Hobby," is geared to get us thinking about our world and the universe around us. You don't need any prior astronomical expertise for this one -- just come with an open mind, a curiosity about what's out "there," and a desire to be dazzled by some beautiful photography. This sounds like a fun one for family and guests, so don't be shy with invitations.

Congratulations to the Repeater Committee (plus a few other friends) for getting the new controller built and installed at the W6TI site on Black Mountain. There is an article by Committee Chairman W6JZU elsewhere in this issue of The DXer discussing the new controller and explaining how it works. The controller has been a long time in coming, and to all of you who were involved with the project, our sincerest THANK YOU!

Hmmmm... Did we start something? In my column here in "The DXer" last September, I questioned the appropriateness of certain QSLing practices. Several other newsletters and magazines picked up and reprinted parts of that editorial. Well, it seems to have hit a nerve! There has been lots of mail. The majority of the writers have expressed views generally in accord with those in the editorial. A couple, however, disagreed vehemently. At any rate, I think public awareness and discussion of the issue is good for

DXing, and if NCDXC is in some way responsible for that debate, then I say good for us! One result of the discussion has been that both the RSGB and the REF are introducing position papers on the subject of QSL manager practices at the IARU Region 1 meeting being held in Spain next month. "The DXer" staff managed to get their hands on copies of the British and French proposals and has reproduced them elsewhere in this issue. I hope you will find them to be thought provoking.

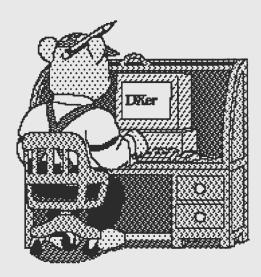
The International DX Convention will be held in Visalia the weekend of April 6 through 8. From what I hear, this will be the biggest convention ever! The Holiday Inn has been booked solid for ages, and even some of the other nearby hotels which had been picking up the overflow are now full themselves. Lots of overseas DXers have told me they plan to attend, so this will be a great opportunity to meet personally many of the folks we've been working all these years. And I have a favor to ask of NCDXC members. Don't forget that all the hustle and excitement of Visalia can be awfully intimidating to some people, particularly the newcomers to DXing who might not know as many of the regulars as we do. Please stay alert as to who might be sitting off by themselves on the sidelines. This is "our" convention and we need to make sure it's enjoyable and memorable for everyone. So, if you do see somebody looking a bit overwhelmed by it all, go over and introduce yourself. Perhaps you'll make a new friend, or perhaps you just might be the one to make the Convention real special for somebody else.

Because of the Visalia convention, there will not be a regular NCDXC meeting on the second Friday of April. We'll try to remind everybody of this again on the Thursday night W6TI nets, but you might want to make a notation on your calendar just to keep you from forgetting.

73's de Rusty, W6OAT



OUR DX AWARD OF THE YEAR TENTATIVELY GOES TO OUR NEWCOMER, HERE, AS 500H AS HE GETS THE QSL CARD --- HE CALLED HOME!



BOB'S BABBLINGS

Wow --- Another issue just chock full of interesting items !!! We've got several articles on QSLing practices, as Rusty mentions in his "Ramblings" as well as one regarding the W6-QSL Bureau, which is near and dear to all of us.

We also have several updated inserts in this issue. Hal, N6AN, has provided a handy condensed but comprehensive list of all the DX Packet Spotting Network commands. This list will fit nicely on your wall or under the glass on your operating table --- and it will save you having to muddle through the manual to find 'em. Larry, KD6XY, has updated the NCDXC DX and WAZ Ladder listing. Larry asks us to note the sample format included, which can be used in future reports as new figures for the WARC bands start coming in, and welcomes any comments you may have on the new format.

Preliminary results for the ARRL DX Contest are provided courtesy of Ace, N3AHA. So far, we've got 10 Meg +++, and that's just for the CW weekend !! Last year we did about 27 Meg ++, royally cleaning SCDXC's clock and retaining the trophy for two years in a row. Can we do it again? Of course we can !! And without hardly even trying either, I bet. Every point helps. Many NCDXC members are not contesters, but that's not the point. I've always felt the DX contests are great opportunities to pick up new countries, zones, etc., due to the large number of DX stations participating in the test --- and to just have fun working 'em !! However, your score submitted to in behalf of the NCDXC does ensure that we keep the

trophy up here in the North. I haven't heard any really good intelligence on how the fellows in the South did during the CW portion, but I venture to think they just might be getting tired of being blown away in the club competition, and just launch an un-announced ofensive against us. But we'll be ready for them! Summary sheets should be submitted to Ace, N3AHA, no later than 30 days after each portion -- CW and SSB.

Good DX & CU in the pileups!!

Best of 73's de Bob, K4UVT, NCDXC Editor

QSLing PRACTICES - IARU VIEW

Region 1 of The International Amateur Radio Union is having a division conference in Spain in early April, 1990. Both the RSGB (United Kingdom) and the REF (France) have submitted proposals on the subject of QSL managers which they are urging the IARU to adopt. In light of the opinions on that same topic in the September, 1989 issue of The DXer, I thought you might find the position statements of these two organizations to be of interest:

Document 90/TS/C3.25

Code of Practice for QSL Management

RSGB (U.K.)

- 1. Any DX station appointing a QSL Manager must ensure that satisfactory arrangements are in place for receiving and responding to incoming bureau as well as direct cards. Adequate publicity must be given to such arrangements.
- 2. QSL Managers must respond to incoming SWL cards.
- 3. Any DX station appointing a QSL Manager must accept responsibility for that Manager's performance.
- 4. QSL Managers must respond "direct" and within a reasonable period of time as long as sufficient funds/IRCs/stamps to cover the exact cost of return postage (and a return envelope if one is not supplied) are enclosed with the request. Air mail must be used if sufficient funds/IRCs/stamps are enclosed.
- 5. QSL Managers must not insist on separate envelopes/applications for different QSOs or different stations. They must establish internal procedures to handle such multiple requests.

- 6. Recognising that mistakes of time and/or date are frequently made, QSL Managers must make a reasonably diligent search for QSOs that cannot immediately be found in the log.
- 7. In particular: It is unacceptable to demand a specific number of IRCs or "green stamps" (US\$ bills) if a smaller number would cover the costs mentioned in Point 4. It is unacceptable to return cards via the bureau if they were received direct with sufficient funds/IRCs/stamps as defined in Point 4.
- 8. There should be no time limit for applying for QSL cards. Old logbooks should be passed to responsible DX Clubs when the manager no longer wishes to retain them.

It is recommended that this paper be published in the HF Manual and Region 1 News.

Next came the French with document 90/TS/C3.36

QSL Manager's Code

REF (France)

CONSIDERING

that the great demand for cards from rare countries has given rise to the institution of QSL Manager, a corps of radio amateurs who volunteer to act as QSL administrator on behalf of amateurs located in sought-after countries;

that tribute should be paid to the performance of these QSL managers, who during many years spend their energy and their spare time in the service of radio amateurism, without any return;

that, however, in a few regretful cases, the radio amateurs find themselves confronted with a QSL Manager whose operation is not up to par;

that experience has learnt that a malfunctioning QSL Manager can create a world-wide discontent and commotion;

that, although QSL Managers act as individuals, not commissioned by a member society or IARU itself, their activity is closely linked to the smooth functioning of the known awards of world reputation;

that the IARU and its member societies have set up and operate a world-wide QSL Bureau organization through which pass practically all the world-wide issued QSL cards, including those destined for the obtention of the above mentioned sought-after cards;

that many or most QSL Managers make use of the IARU QSL Bureau organisation (incoming, outgoing or both);

that the incidents that have taken place justify a reflection on IARU level whether measures are called for so as to avoid incidents in the future;

PROPOSES:

in the first instance, to draw up a "QSL Manager's Code" which could be widely published in the amateur press and therefore become widely known and accepted by the DX fraternity as the standard of good behaviour;

SUGGESTS:

that such a QSL Manager's Code also constitutes a tool which can be used by the award issuing member society or any other body in case difficulties arise in the normal forwarding of cards destined to obtain their awards (for example, by having the Code signed by the Manager);

FURTHERMORE SUGGESTS:

that such a QSL Manager's Code could stipulate among other clauses the following points:

-the QSL Manager is a volunteer who puts his efforts to the service of his fellow radio amateurs, without any return, retribution or advantage of any kind;

-the QSL Manager aims at forwarding the cards entrusted to him by his mandator within a reasonable time span and at lowest cost possible;

-the QSL Manager, fills out his mandator's cards in accordance with his mandator's log sheets;

-the QSL Manager who uses direct mailing accepts the reimbursement of the mailing cost by means of the number of IRC's as prescribed by his local post office. He will not accept any payment in money;

-the QSL Manager, for cards to be sent within his own postal territory, accepts the stamps valid for use in that territory;

-the QSL Manager refrains from criticising the layout or contents of the cards destined to his mandator;

-the QSL Manager who uses the services of the QSL Bureau within his country, acts in conformity with the latter's instruction.

It will be interesting to see what, if anything, the IARU adopts as its position on QSLing!

73's de Rusty, W6OAT

..... AND AS VIEWED BY A FAMOUS DXer

A recent issue of the DX News Sheet from Britain carried a note from Baldur Drobnica, DJ6SI (as translated by G3YMC) giving his thoughts on QSLing:

"In DXNS 1398, a reader (sadly for me no callsign was given) complained that he had received a QSL card bearing a rubber-stamp confirmation. This is done with all QSL cards sent only with an SASE (German stamp). In this case, I send no QSL card -- which cost me 0.5DM [1 DM = US \$0.58] each. I printed 7,000 QSLs for 3D2SI at a cost of 3,500DM and the DXpedition cost the operators 7,000 DM each. It is fun to plan a DXpedition and to organise and carry it through, but somewhere the costs must also be considered. DXers must decide what they want -- a confirmation (QSL) for a new country for DXCC -or a pretty QSL for their collection or the pinboard. In the first instance, the rubber stamp is adequate; I assume that when the DXer sends no IRCs, no green stamp, etc., then the simple confirmation, i.e., by rubber stamp, is adequate. I received my first "rubber stamp" confirmation in 1961 from Danny Weil's FO8AN DXpedition. It is not a German invention!

Then there is the bad habit, which greatly delays cards, of applying for cards for several DXpeditions at the same time...probably for economy reasons and often with a single \$. I always deal with one log at a time, but such applications mean changing from 3D2 cards to A15... 5UV386 ...5V7 ...TY ...5L, etc, etc. This must stop! For all DXpeditions, I now make the following stipulations:

- After the end of a DXpedition, I will set a
 period of seven (7) months to answer QSL cards.
 Cards received after seven months will no longer
 be answered and will go back via the buro.
- All QSL cards for all my previous completed DXpeditions will no longer be answered if they arrive after the deadline of 31 June, 1990.

I have here twelve different boxes for twelve different DXpeditions. They will never all be used. My son writes all the old DXpedition cards, myself the more recent ones. He gets 12p [12p = \$0.05] for every letter. I am still receiving cards for DXpeditions in 1980...why? Every QSL Manager must have his system, especially when he does 3-4 DXpeditions in a year, with every one producing 7-8,000 QSO/QSL. My system of priorities when answering QSL cards is as follows:

- 1. Sent with more than \$2
- 2. Sent with \$2
- 3. Sent with 2 IRCs
- 4. Sent with \$1
- 5. Sent with 1 IRC
- 6. Sent with SASE (DL stamp)

Cards sent with no return postage are answered via the buro. Any DXer who does not agree with this system should not call me in the pile-ups. He should wait for another DXpedition which may be cheaper for him. We live in a time when Olympic competitors already receive financial rewards. This was not allowed before. Are we the TRUE amateurs? Ham spirit? With me that begins with forbidden goals and our operating techniques, not with the QSL which arrives one year later. Other DXpeditions print their QSLs a year later; everyone gets his card from me if he is in the log -which in 5% of cases is not the case -- and it is sent direct. One should also not overcharge. I keep a record of all monies received for each DXpedition. Then I can often prove the one who writes "\$5 sent but no QSL" only sent 1 IRC!"

73's de Rusty, W6OAT



W6 QSL BUREAU THOUGHTS ...

[W6OAT received the following letter from W6LPJ of the Sixth District QSL Bureau in response to a couple of questions he asked. Since it contains a few hints on the inner workings of the bureau, we thought you might enjoy seeing it. - Ed.]

Dear Rusty,

We do not divulge the managers' names or calls to anyone. If a manager wishes to do this on his own, he/she may do so, but we strongly discourage it for several reasons.

Your particular manager does not normally attend the Visalia DX meeting. However, if you see anyone there with an ARRL Badge that is "rust" colored and has "QSL Bureau Worker" under his call and name, he/she is a legitimate worker and would appreciate any kind of thanks you could give.

Our bureau is divided into 26 segments, one for each letter of the alphabet. The letter following the "6" designates which segment your call falls into. Each segment has a manager who takes the QSLs, envelopes, stamps, funds, etc. and sorts them into a "Callbook" type of order. That manager then either files or mails the QSLs, usually once every month or six weeks if there is an ounce or more, or whenever an ounce of QSLs is reached, or when the first QSL(s) have been in the file around three months.

 Archie R. Willis, W6LPJ, General Manager Sixth District QSL Bureau

73's de Rusty, W6OAT

Editor's Notes on the subject

Earlier this month, a club member received correspondence from the Buro that indicates "WE WILL HAVE A NEW MANAGER SOON - FOR BETTER SERVICE". This same member sent a letter to the Buro saying --- " I love to send QSL cards, and I also love to get some back !! " --- Perhaps there is hope for the buro yet.

Also, a recent message on the Packet Cluster (via K6PBT) gives us an insight into the Bureau's "trashing" policy. Another club member came across this one whilst cleaning up his files; the message was somewhat garbled, so we can't vouch for total accuracy. The readable part says:

"A recent conversation from a local QSL Bureau member brought up an interesting if not sad, condition. That is: that most of the overseas QSL cards are simply thrown in the trash because the call area Ham does not have any envelopes on file. They usually wait 90 days to trash them, but no one ever seems to remedy their problem. With the number of cards coming in, you should not depend on the Bureau sending you a reminder slip

to send more envelopes. Also envelopes are never thrown away, so some have 17 cent stamps on them.

It would be a good idea to publish a note in your next club newsletter to notify Hams that their QSL cards may be getting trashed because they have failed to keep envelopes on file. "

'Nuff said on that one --- keep your envelopes current at the Buro!! Anyone else have any views on the Buro they'd like to share with the readership?

Bob, K4UVT, NCDXC Editor



WE HAVE OUR NEW REPEATER CONTROLLER!!!

"B-E-E-P"

It's only 20 ms. long, pure and melodic, and 500 hz. It follows each transmission as the carrier is dropped. Yet, it took some 5 years, 5 club presidents, 5 Boards of Trustees, 3 Repeater Committee chairmen, and a thousand "volunteer consultants" (or did it only seem like that many?), and Pete, to finally get the "beep" installed.

"The simplest things in life are often the most complex".

The club repeater was installed on Black Mtn. many years ago for the purpose - then and now - of providing reliable and uncomplicated communications among club members for the dissemination of DX information. At that time, as now, reliability is considered to be of the highest order of priority. The site is not easily accessible and access has to be carefully controlled. Therefore the system - including back-up power, antennas, and housing - had to be designed for the lowest level of maintenance, and the highest level

of reliability attainable. In the intervening years, I cannot recall the system being down even once, except for routineed maintenance, and occasional turn-offs due to someone calling in on the telephone line, usually due to a wrong number dial. Oh, yes, the emergency power system had to kick in occasionally, once for over a week, yet the repeater always came up and total communication was rarely, if ever, lost due to equipment failure.

The old system, reliable as it was and is, provided only a very limited number of control functions. When the PL was on, the Timer had to be turned off, etc. In the meantime, commercial controllers became more versatile, reliable, and offered a broad range of options.

Finally, Pete, WB6OOL, with the help of Rod, KR7E, installed and configured the new controller. (Pete and Rod designed and built as required, the original and still-in-use GE Master Pro II, and it has been Pete who has maintained the system all the intervening years.

The controller is an ACC, Model RC-85. It is full-featured and user programmable. Control is still via a dedicated fone line, but utilizes touchtones for all control functions, and therefore is not subject to being turned off by fone falsing. The many features include 25 message buffers (in both CW or synthesized voice), many timers, autopatch and autodialer, remote control logic outputs, selectable courtesy tones, noise and kerchunker filtering, etc., etc.

Most of these functions will not be used but will be available as required in the future by the club, or can be activated in the event the repeater is used for an emergency.

Two new features that by now users will have noticed, are the shortened time it takes the system to come up to full power. The Courtesy Tone is activated when a carrier is dropped and with the much longer 3000 ms. "hang-time", eliminates the first squelch tail. An additional accessory board to the RC-85 shortened the full power risetime by about 75%.

The Repeater Committee will be meeting this week to discuss, among other things, possible future needs for the repeater in order to maintain its reliability. The antenna system and the emergency battery back-up system, both well over ten years old, will probably need to be replaced before long.

The club's **THANKS** are surely extended to Rod and especially to Pete and to all of the many other repeater committee members, various technicians, and club board members, whose efforts and occasional "jibes" finally resulted in the current upgrade.

de "Smitty" Smithwick, W6JZU, NCDXC Repeater Committee Chairman

3Y5X - BOUVET OPERATING PRACTICES

[Here is an interesting squib lifted from the February '90 issue of "The Bullsheet," the newsletter of the Texas DX Society. - ed.]

IT'S DE-JA VU ... ALL OVER AGAIN!

Have you been as appalled as I have by all of the stupid goings on during the recent 3Y5 operation? I recently stumbled across an article in QST that I think goes to the heart of the matter. When you have read it, make a guess as to when the article was written. It would appear that things haven't changed much.

"...For the past several years, there has been article upon article printed in QST about proper and improper methods of operating an amateur station, especially as it relates to calling CQ, and CQ DX. Broad signals, repeatedly calling not to mention many other thoughtless and deliberate discourtesies of which so many amateurs at one time or another are guilty. Today we seem to be in as bad or worse disorder than ever before. One only has to listen to a DX pileup on phone or CW to hear living proof of our sorry state of affairs.

"Since last August I have been attempting to keep various DX skeds, especially with Australia. It has been all but impossible to hear anyone outside the country due to about 90 percent of the many W operators blatting out "CQ DX" and wiping out the DX in the process. I continue to be amazed at how these poor ops are really screwing up the DX they are trying to work.

"I have a letter from ZL1FW in which he states, I am occasionally bothered by local QRM, but most of it is from Stateside, and you chaps over there not only blot out the DX, but each other..."

I have edited this article considerably, but the thoughts certainly apply today. So you think we are the only bad guys on the block? This article was written by W9CKQ and first appeared in QST in June of 1929!

de Jim, N5DC



February BOD Meeting

The February, 1990 NCDXC BOD meeting was held at the Royal Palace Restaurant in Los Altos, prior to the regular meeting. Rusty, W6OAT, presided.

Items:

- The need for a chairperson for the 1991
 International DX Convention was discussed.
- A committee to choose this year's 'DXer of the Year' was appointed by the board. Appointed members: W6VG, W6ISQ and N6AN. The procedure is for the appointees to select two more committee members.

February 1990 NCDXC Meeting

The February general meeting was also held at the Royal Palace Restaurant, with president Rusty, W6OAT, presiding.

Items:

- Rusty announced the 'DXer of the Year' committe selections.
- Jim Maxwell, W6CF, gave a talk on DXAC history, duties, including new country DXCC-accrediting procedures.
- 3. First readings were held for:

C.W. Chandler, W7LDJ 7500 Putman Road Vacaville, CA 95688

Jim Pratt, N6IG 1180 Arroyo Grande Sacramento, CA 95864

Dave Armstrong, AA6PI
45 Washington Park Avenue
Mill Valley, CA
9494

 Second readings, all voted affirmative, were held for:

Mike Wood, N6MVE

David Stamm, AA6PG

Thomas Wood, N6IXX

Steven A Wright, N6RLJ

Respectfully submitted,

Dave Barton, AF6S, NCDXC Secretary



DXer OF THE YEAR

Break out your quills, pens, typewriters or computers and write down your nomination for whom you think is the most deserving club member for the coveted annual DXer of the Year award. The criteria which will be considered for this award can be found in the NCDXC Procedures Manual, paragraph 3-115.

Now we know you don't remember where you put your Procedures Manual, so we will give you a few hints as to what you should write. Your nominee should have some or all of these attributes plus some we haven't thought of yet:

- 1. Participates in club activities. This covers a wide spectrum. Service as an officer, director, DXer editor, repeater committee, other committees or any other worthwhile club endeavor.
- 2. An active DXer. Winner of major DX contests, winner of awards such as 5BDXCC, Honor Roll, etc. Participant in DXpeditions and DXpeditions putting a new country on the air for the first time.
- 3. Amateur-related appointments and service. ARRL offices, committees or assignments, etc.
- 4. Service to the public. Service in emergencies, promoting international goodwill, assisting

potential or new amateur radio operators and conducting amateur-related training programs.

A committee of five will review and carefully consider each nominee. To assure sufficient time to have a fancy plaque made for the winner, for presentation at the International DX Convention in Visalia, your nomination should be received on or before March 15, 1990.

Send all nominations for DXer of the year to the Chairman, Ron Panton, W6VG, 5 cedar Court, Menlo Park, CA 94025.

de Ron Panton, W6VG



FROM THE RADIO BOOKSHELF

This is a brief review of a book that I am sure would be enjoyed by anyone in our hobby. The title is QTC (I have a message for you), by SPARKS, who is actually a seagoing radio officer by the name of Ray Redwood. It is a collection of many stories and accounts of early day radio history from the eyes of a radioman. His detailed account of the sinking of the Titanic from the logs of the radio operators is so well done that one can actually feel he is on duty as all the action takes place. It is available from Sequoia Press, 2502 Cockburn Dr., Austin TX 78745, for the price of \$8.95 in paperback. I included \$1.50 for postage and it arrived in less than 10 days. This is some of the best radio related reading I have ever had, and I am glad to add this book to my library.

de Dick Letrich, WB6WKM

25 YEARS AGO

(A nostalgic account of the NCDXC meeting in March 1965 --- sound familiar ??? -- Ed.)

Club Officers.

President Ron Panton, W6CBE (W6VG), VP Curt Roche, W6ZMW, Secretary-Treasurer Ray Eichman, WA6IVM, and Directors Rich Wilde, K6OHJ and Jack Brolier, K6ERV present.

Club call is W6TI. "In memoriam to Howard Greer, charter member, 1946". Club call custodian is Rick Hilding, K6VVA.

ARRL DX Contest.

SSB scores reported (contacts/multipliers) are

 K6AHV (W6RJ)
 172/88

 K6OHJ
 171/86

 W6LDD
 161/87

 W6WX
 163/83

 K6ERV
 168/74

 W6LCF
 124/67

 W6BSY
 128/74

CW scores reported (contacts/multipliers) are

K6OHJ - 264/128 K6ERV - 262/123 W6KG - 251/121 W6WX - 239/122 W6LDD - 227/114 W6BSY - 161/101

DX On Now ---

AC3PT - Sikkim (Gus Browning, W4BPD) VS(MG, VU2NRA, HZ3TYQ/8Z5, 5V8AB, TL8SW, ZM7AE (Tokelaus)

NO DXer EDITOR now. Curt Roche is head volunteer until someone can be found to take over.

W6KG is leading **WPX** with 650/700. **DXCC Mixed**: W6AM -- 311/336, W6GPB -- 306/327, W6UJ -- 304, W6KEV -- 300/326, W6BSY -- 292/307, W6KG -- 286/306, W6PHF -- 265/275, W6RGG -- 131/166. **DXCC Phone**: W6AM -- 306/330, K6VVA -- 256/272, W6LCF -- 248/259, W6BSY -- 226/231.

FOR SALE: 200 cycle filter for 75A4 by W6KG.

MARCH MEETING: Thursday at Taddy's Steak House, San Mateo. 32 members present. Visitors were VK5FH, WA6DJI and W6KEK.

POTPOURRI: W6WX motioned for the club secretary to write ARRL to request shortening DX Contests to a single 24 hour period for each weekend, phone and cw. There was unanimous approval. Lloyd and Iris are beginning a DXpedition in August. The California Award (#71) goes to VK5JE. The film "DXpedition to Bechuonaloand" was shown. W6ATO said his DX test logs had not been received by ARRL. W7WJB motioned for all who are active in the test to send

information to the club secretary, who will notify Ellen White at ARRL as to who sent in logs. Meeting adjourned at 10:52 PM. Signed by WA6IVM.

Mni tnx to Jack Troster, W6ISQ



WZ6Z WINS WPX TROPHY !!!

Congratulations and a FB job to Howard Brainen, WZ6Z, and his team of N6IG, K3EST/6, WA6VEF, K6TMB, N6RO and VE7NKI. The WZ6Z team has captured First Place for the USA in the multi-operator, multi-transmitter division of the 1989 CQ WorldWide WPX SSB Contest. This victory qualifies the team for the Glenn Tracey, KC3EK Trophy. The winning score of 18,737,170 easily beat the nearest USA competition by almost 11 Meg points, and has established a new USA multi-multi record to boot !! This score also qualified for 4th in the world --- Great Showing!

As reported in CQ Magazine, March 1990



de Lloyd and Iris

(The DX'er Editor recently received the following letter, dated 21 January 1990, from the globetrotting Colvins. This letter comes to us from Manama, Bahrain, in the Arabian Gulf)

Dear Friends,

We have just concluded our operation in the Arab Country of Bahrain as A92QL. We made 5000 QSOs with radio amateurs in 126 countries.

Everyone has helped us to get a special license that is not in the normal sequence of assignment. The President of the Bureau of Wireless Licensing, Abdulla S. Al-Thawadi, A92BE, A92BW and A92EV have been especially helpful.

We operated from a 7-story building overlooking the Arabian Gulf. We had good propagation and no TVI.

The value of our US dollar continues to decrease. Our one-month stay here was the most expensive of all of our DXpeditions.

We go next to Oceania. Hope to see all of you from a country there.

(And....., we also received the following letter, dated 7 February 1990, which comes from Annangrove, Australia)

Dear Friends,

We have just concluded our operations as VK2GDD. This was **not** a planned stop on our round-the-world trip. It was a good operation with 4,000 radio amateurs worked on all bands 10 thru 40 meters, phone and CW, with 142 different countries -- all within less than two weeks.

The following made this possible:

- 1. Our YASME director in Oceania, Heather, VK2HD, contacted many amateurs in Australia and made arrangements in advance for us to stay at the QTH of VK2BJL, Harry, and his wife Mary. We used Harry's antennas and our own equipment; Mary did the cooking. It was a perfect location in a small town near Sydney. The QTH was on a hill and not near other houses.
- 2. We obtained our VK licenses immediately upon arrival with no delay.
- 3. Harry, VK2BJL, advised us on the best times and frequencies to work DX.
- 4. Both Harry and Mary put up with our operation at odd hours, day and night, and fed us with our favorite foods.
- 5. The Wireless Institute of Australia had us speak over their Sydney radio station and also at a special meeting of the WIA.

We go next to New Zealand, where we already have the call ZLOAKH. Watch for us using that

73's de Lloyd, W6KG and Iris, W6QL

IRELAND ACTIVITY DAY

On March 17th next, the IRTS shall be promoting an Irish Activity Day, begorrah. The aim of this activity (which is not a contest as yet!), will be to put as many Irish counties as possible on the air to help deserving hams everywhere to achieve the Worked EI Counties Award.

Blimey, ye blokes, get in there and work those rare Irish counties while ye may !!

Adapted from the IRTS Newsletter, December 1989





Treasurer's Report

Feb 1 to Feb 28, 1990

Checking Account Activity

January 1990 E.O.M. Balance	\$5,800.05
Deposits from Dues	\$198.00
Other Receipts	\$165.00
Subtotal	\$6,163.05

Accounts Payable (See Notes below)

\$2,141.16

Current February 1990 E.O.M. Balance \$4,021.89

Savings Account Status

Bank of America, as of 02/15/90 \$12,594.74

Includes QSL Reserves

American Savings, as of 01/19/90 \$8,375.29

One year C.D. @ 8.65% matures 7/24/90

Repeater Fund

Balance as of 02/28/90 \$1904.41

(See Note 1 below)

NOTES:

- 1. \$1400.00 transferred from NCDXC checking account to NCDXC Repeater Fund to maintain repeater fund balance between \$1500.00 and \$2000.00.
- 2. Filing Fee of \$2.50 paid to Secretary of State for Non-Profit Organization Statement.

de Stan Kuhl, K6MA, NCDXC Treasurer

FLEA MARKET SEASON ...

Just a reminder that it's Flea Market season again at Foothill College! As before, it's on the second Saturday of the month in parking lot B.

The seller's fee is \$10.00 this year. Further info and talk-in can be found on the 144.67/145.27 SPECS repeater (W6ASH). C U there!

de Bob, K4UVT

ROSTER CHANGES

Please make the following changes to your NCDXC rosters:

(No changes noted this month)







Radio Amateur's Home for Sale in Danville

We are about to place our beautiful home in the desirable Greenbrook area of Danville on the market and move to a smaller one about a mile away. This is a rare buy for a radio amateur wishing to avoid the now-standard CC&Rs prohibiting outdoor antennas.

- 2,435 sq ft in prime condition
- 4 bedrooms, 2 1/2 bath, hardwood floors
- Attractive landscaping, patios, brick paths, courtyard, large deck shaded by grape arbor and made fragrant by a 30-ft magnolia
- Citrus, peach, nectarine, persimmon, apple trees; raised planting beds; sprinklers
- Probably the only planned community in San Ramon Valley permitting visible antennas
- TH3MkIII tribander, 220V for amplifier
- On 23-acre creekside private park with large clubhouse, olympic-size pool and tennis courts
- Iron Horse Trail: 20-mile linear open space at back door for hiking/biking
- Quiet street in well-maintained neighborhood

Call Pat, AK6T, or Judy at (415) 837-3478

Paid Advertisement

THE NORTHERN CALIFORNIA DX CLUB, INC., PO BOX 608, MENLO PARK, CA 94026

The DXer is the bulletin of the NCDXC and is published monthly for the benefit of its members. Permission to use any portion of this publication is hereby granted, provided credit is given to the DXer.

NCDXC OFFICERS

President: Rusty Epps, W6OAT Vice President: Larry Souza, KG6GF Secretary: Dave Barton, AF6S Treasurer: Stan Kuhl, K6MA Director: Jerry Griffin, W8MEP Director: Chuck Vaughn, AA6G Director: John Cronin, K6LLK

DX'er STAFF

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P. O. Box 61733
Sunnyvale, CA 94088
-or- via PacketCluster
Send DX ladder reports to:
Larry Bloom
2520 Heather Lane
San Bruno, CA 94066

NCDXC REPEATER W6TI/R

Output 147.36 Mhz, Input 147.96 Mhz Trustee: Bob Vallio, W6RGG Repeater Committee Chairman: Smitty Smithwick, W6JZU Suggested simplex freq.: 147.54 Mhz

NCDXC THURSDAY NIGHT NET

On W6TI/R Thursday at 8:00 PM local time.
Operations Manager: Ralph Hunt, AG6Q
DX News: Bob Artigo, KN6J
Propagation: Al Lotze, W6RQ
Contest News: Rich Hudgins, WX6M
Westlink: Dave Bottom, KD6AZ
Swap Shop: Ben Deovlet, W6FDU
933 Robin Lane
Campbell, CA, 95008
408/374-0372
QSL Information: Mac McHenry, W6BSY

NCDXC DX BULLETIN BROADCASTS

Trustee: Bob Vallio, W6RGG W6TI, the NCDXC memorial station broadcasts DX bulletins each Sunday at 1800 PST (Monday 0200 UTC) on or about 7.015 Mhz and 14.002 MHz.

DX is EASY with DXLOG!

QSLs still sitting in a shoebox?

Paperwork a hassle for award submissions?

No problem! Let DXLOG do the work for you!

DXLOG™ is the complete DX tracking system for the IBM PC

DX'ers in over 40 countries are praising DXLOG release 1.3...

- * DXLOG produces worked/confirmed lists by band, mode, and CQ zone.
- * DXCC countries and CQ zones are automatically determined by callsign.
- * The complete DXCC list is included. You can even add new countries!
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- * Automatically know when to apply for new awards & endorsements!
- * Print completed DXCC & WAZ award forms. Just sign them!
- * Quick, easy, profesional. No copy protection. Customer support hotline!

Send check or M.O. for \$39.95 (add \$5.00 shipping outside US/Canada), or \$5.00 for a functional DXLOG Demonstrator disk and manual to:

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Include your callsign and specify 3.5" or 5.25" floppy. PA residents add \$2.40 sales tax.

CW

SINGLE OPERATOR - NOT ASSISTED

050s

CHTT	<u>Q505</u>	MULIS	TOTAL SCORE	POWER
N6TV	1,321	273	1,081,899	OVER 200
N6EK	881	180	475,740	OVER 200
K6DR	449	145	195,315	OVER 200
W6NKR	399	157	187,929	OVER 200
N6AN	354	134	142,308	OVER 200
W6GO	232	118	82,128	OVER 200
K6SMH	200	72	43,200	11-200
SINGLE	OPERATOR	- ASSISTED		
CALL	<u>QSOs</u>	MULTs	TOTAL SCORE	POWER
AA6PG	@ 932	@ 220	@ 600,000	OVER 200
K6MA	445	200	267,000	OVER 200
K6HIH	600	133	239,400	OVER 200
WX6M	189	109	61,803	OVER 200
W60AT	146	126	55,188	OVER 200
N6JM	174	91 '	47,502	11-200
N3AHA	224	68	45,696	OVER 200
NT6G	48	46	6,624	OVER 200
*-				
MULTI (OPERATOR			
CALL	QSOs	MULTS	TOTAL SCORE	POWER
N6RO	@ 3,368	@ 459	@ 4,637,736	
KG6GF	@ 1,115	@ 331	@ 1,000,000	OVER 200
WZ6Z	@ 911	@ 285	@ 780,000	OVER 200
K6ZM	@ 600		@ 330,000	OVER 200
TOTAL C	CLUB SCORE		@ 10,279,468	(so far!, as of 1 Mar)

MULTS TOTAL SCORE POWER

@=approximate (I don't have all the summary sheets yet, WHY NOT ?)

Well, who knows if that's enough to win? If you made only one contact in the contest, send in your log and help the club. Some reminders 1) Send your logs to ARRL within 30 days after the last contest weekend (April 4, 1990) see Dec 89 QST pg 79. 2) There is a new category in this years contest and that is single operator assisted. If you used a spotting net or packet, this is you! I guessed on some of your entries because you did not say. If I'm incorrect, please except my apology and let me know what is correct. 3) Send your summary sheets to me,

Mni Tnx & 88's to Louese, KA6ING fer repeater callouts fm Packet reports!! Ace Jansen, N3AHA
51 Kenbrook Circle
San Jose, CA 95111 73
(408) 224-3017 Ace



_nn = number : prefix שטו = oblast band = 10, 15, 20, etc.

DX PACKET SPOTTING NETWORK Capital letters are abbreviated commands. Lower case letters are optional. REV.5 February 10 1990 - HAL NGAN

COMMANDS Announce message Bye **CONFERence** DElete message # Directory Directory/All Directory/Bulletins Directory/New Directory/nn Dx freq callsign Help or ? Read message # REPly message # REPly/Delete

Send callsign

LOCation SEt/Name name SEt/NOhere SEt/Qth

SH/Bulletins

SHow/BUREAU px, obl, dx organization SHow Configuration SHow/CONTEST SH/Dx SH/Dx/15 SH/Dx 20 SH/Dx/25 14 SH/Dx/nn band dx sta

SH/Dx/nn band SHow/Files SHow/FLUX year SHow/60 SH/60 SUBS SHow/Heading prefix /HELP SH/IRC

SH/Dx/nn px

SHow/LOCation call SHow/MUF prefix

PURPOSE Announcement message TO MAKE A GENERAL ANNOUNCEMENT TO ALL.... GENERAL ANNOUNCEMENT. KELLK NODE USERS ONLY Annouce/Full message GLOBAL, TO ALL, K6LLK NODE ONLY TO DISCONNECT FROM PACKETCLUSTER ENTER CONFERENCE MODE. QUIT CTRL-Z DELETE A MAIL MSG, DRIGINATOR OR ADDRESSEE DISPLAYS LAST FIVE MAIL MESSAGES DISPLAYS COMPLETE LIST OF ACTIVE MESSAGES DISPLAYS MAIL MESSAGES SENT TOALL DISPLAYS NEW MGS SINCE LAST USE OF DIRECTY DISPLAYS on ACTIVE MAIL MESSAGES TO SEND A DX ANNOUNCEMENT. D 1400B 3D2XX ONLINE HELP SUMMARY TO READ A PARTICULAR MESSAGE. R 123 REPLY TO A MSG DIRECTED TO YOU. REP 123 TO: WAXXX SUBJECT: TOPIC (WHATEVER) REPLY AND DELETE LAST MESSAGE READ TO SEND A MAIL MSG. SUBJECT: MAX 30 CHARS. END MSG WID CTRL-Z: /EXIT ON SEPARATE LINE end/Private callsign MSG TO A SPECIFIC STATION. NOT TO ALL YDUR LAT. & LONG. AS: 37 15 N 122 30 W ADDS YOUR NAME TO PACKET CLUSTER. SE/NA DON SPECIFY YOU ARE NOT MONITORING SPECIFIY YOUR CITY AND STATE SH/ALlocation xx or x SHOWS COUNTRY ITU PREFIX BLOCK. TWO CHAR. PREFIX A-Z OR ONE NUMBER 0-9 DISPLAYS AVAILABLE BULLETIN FILES. TO READ A BULLETIN: TY bulletin nr. AS:TY ARRLO39 SHOWS DX WSL BUREAUS, OBLASTS AND DX ORGANIZATIONS. AS: SH/BUREAU ZA, 163, YASME SHOW PACKETCLUSTER CONFIGURATION PROVIDES CONTEST INFO, DATES AND RULES SHOW LAST 5 DX STATIONS REPORTED SHOW LAST 15 STATIONS REPORTED SHOW LAST 5 DX STATIONS ON 20 METERS SHOW LAST 25 DX STATIONS ON 20M (14 MHZ) PROVIDES BAND ACTIVITY FOR A SPECIFIED DX STA EXAMPLE: SH/D/10 40 3Y5X = 10 RPTS, 40M, 3Y5X PROVIDES SPECIFIED NR. OF ENTRIES FOR DX PREF SHOWS NR. OF DX ENTRIES FOR SPECIFIED BAND DISPLAYS FILES THAT ARE AVAILABLE SHOWS MONTHLY MEANS OF DAILY SUNSPOT NRS. SPECIAL CMD FOR W660/K6HHD SUBSCRIBERS SHOWS LIST OF W660/K6HHD SUBSCRIBERS PROVIDES A BEAM HEADING FOR DXCC COUNTRY PROVIDES SYSTEM AND OPERATING INFORMATION INFO ON HOW MANY IRCS FOR MAILING

SHOWS LAT/LONG FOR A USER STATION

DISPLAYS MUF TO THE SPECIFIED COUNTRY

PURPOSE COMMANDS SHOW/NEED callsign *LISTS COUNTRIES NEEDED FOR DXCC **\$TD ENTER COUNTRIES NEEDED FOR DXCC** SET/NEED DISPLAYS CURRENT SYSTEM NOTICE-K6LLK SHOW/NOTICE WB2CHO DX NEWS, UPDATED EACH TUESDAY SH/NEWS SHOW USSR OBLAST INFORMATION SH/OBL px SH/P px SHOWS COUNTRY NAME, CQ AND ITU ZONES PROVIDES OSL MANAGER INFO FROM WAGO LIST SH/QSL callsign SH/QSLNEW TO PLACE NEW QSL INFO INTO W660 DATABASE INFORMATION RE: FCC PART 97 RULES SH/RULES LISTS MAJOR PLANETARIUMS U.S. STATES, SH/STARS 4S, 4X, 5N, 9K, BV, BY, CE, CT, CX, DL, ET, F, 6B, HA, HB, HC, HK, HS, I, JA, LU, DA, DE, DH, DK, DN, PA, SM, SV, UA, VE, VS, VU, XE, YB, YV, ZL, ZS SHOW SUNRISE/SUNSET FOR DXCC COUNTRY SH/SUN px TO TALK TO ANOTHER STATION ON THE NODE Talk callsign msg BOTH STNS MUST USE TALK CMD. QUIT CTRL-Z SHOW USERS TO NODE YOU ARE CONNECTED TO SHow/Users SH/U callsign PROVIDES NODE CONNECT INFO FOR CALLSISM SHOW LAST 5 WWV PROPAGATION REPORTS SHow/W WWV SF=xxx,A=xx,K=xx TD SEND WWV INFD. WWV SF=201,A=10,K=03 SH/ZONE px or zo nr SHOWS ZONES BY PREF OR COUNTRS IN A ZONE

Currently, not operable

-	HONOR ROLL	DXCC	5 BAND DXCC	~ HO	NOR ROLL	DXCC	5 BAND DXCC
CALL	-MIX PH. CW.	-MIX PH. CW	-10m 15m 20m 40m 80m	CALL -MI	X PH. CV.	MIX PH. CW.	-10m 15m 20m 40m 80m
KF6A AA6AD W6AED/7		274 271 181 252 325	109 176 258 54 100 100	W6MZ 31 W6NA W6NKR	15	333 289	140 190 251 192 109
W6AEO WA6AHF	312	241 335	100 100 100 100 100	W6NLG 31	16	316 306 100 300 200 191 316 200 265	100 100 100 26 100 135 258 152 34 200 200 200 178 139
KG6AM N6AN K6ANP	317	288 272 180 338 285 287 316 199 211	153 205 248 40 25 218 280 298 175 117 133 144 199 110 105	K6NM W6NPY WA60 N6OC		316 200 265 217 303 300	200 200 200 178 139 88 50 123 2 16
NGAN KGANP KAGBIM WGBJH	311	196 190 59 327 192 282	108 131 141 33 8 120 117 187 117 100	NGOC WAGOEY NGOJ		227 316 275 105	71 60 170 20 8
WA6BSS W6BSY KB6BW	315 313	290 290 2 358 351 251 2	131 164 241 52 21 89 89 151 26 2	WEOME 3	12 311 13	328 327 332 318 309	187 250 309 17 12
K6BWX W6CF K6CN	315	225 1 224 342 294 185	204 239 306 178 138	W60SP WB60TB K60ZL WG6P K6PBT K6PKO		271 332	100 100 100 100 100 184 210 303 207 118
W6CTL WB6CUA		321 294 280	142 129 313 88 11 100 100 100 100 95	WG6P K6PBT K6PKO		306 306 283 216 191 115 308 301	111 133 145 61 15 270 175 185 97 112
WW6D K6DC	315	172 89 147 359 126	33 70 136 67 26	NOTU 3	16 311	344 325 250 303 289 168	200 200 300 200 100 100 100 100 100 100
W6DD W6DPD K6DR		300 300 248		AG6Q KB6Q W6QDE W6QL 3	15	294 281 138 243 337 263 69	114 161 201 111 103
K6DR K6DT W6DU NQ6E	312 307 312		229 251 328 153 121 212 237 302 152 103 116 127 196 136 118	NERC	10 16	313 213 345	100 100 100 100 100
WD6EKR/M	210	303 240 349	170 234 291 78 72 78 193 149 2 2	KERK 3	14 17	326 312 289 354	100 100 100 100 100 100 91 182 285 126 71
W6ERS W6EIR WB6EXW	319	303	100 100 100 50 11	K6RQ 3 N6RR K6RUW DJ6RX 3	15	289 270 242 120 336	116 210 176 129 88 100 100 100 215 271 303 227 185
W6FAH K6FD W6FGD		286 165 271 323 258 273	170 189 266 141 138	AF6S K6SIK WA6SIO N6SI 3		312 301 286 282 140	247 262 286 192 128 183 186 262 128 120
K6FO KB6G		277 185 239 253 229	134 164 235 125 102	N6ST 3 W6SYL	15	310 320 297 235 220	171 207 284 126
KD6GC KG6GF WB6GFJ		175 281 101 300 70	70 120 210 256 124 161 192 246 105 50	W6SYL W6TC 3 W6TER K6IMB	20 318	332 318 269 301 295 235	
N6GG W6GO	312 311	301 326 325 307	257 286 313 242 206	WAGTOO WGTPH WGTUI		251 272 238 187	58 84 167 6 6 41 181 172 110 100
K5GOE WA6HAT K6HHD	312	320 243 312 308 23	182 100 100 100 87 204 174 221 42 40	AE6U	308	275 274 305 276 318 306 207	109 125 187 125 116 200 200 200 200 140 240 244 244 176 147
K6HNZ N6HR E6HYE	308 32 3	329 315 323	209 242 254 125 107 100 100 100 100 100	WB6UOM W6UR K4UVI		300 264 159 158	}
K6HHD K6HNZ N6HK W6HXW WC6I W1ICU	316	287 335	151 173 225 161 66	AJ6V KD6VS		287 208 97 311 220 258 304	3 139 162 251 133 62
KAGING WGISQ	312 315 312	180	197 243 322 248 162 157 189 219 122 110	K6WD 3 WB6WKM KF6WI	312	325 272 300 100 100 219 211 153	2 100 100 100 100 65 0 100 100 100 100 63 3 120 166 185 83 32
W61SQ W6JD N6JM W6JRY	306	317 213 292	196 221 255 119 86	K6WR 3	321 321	351 351 281 227 259 250 325 267 209 229	100 100 100 100 100 100 5
N.B.I.V	310 312	321 167 300 328	100 100 100 100 100 75 115 255 22 12	W7XA K6XM		325 267 209 22:	277 298 309 174 137 2 163 179 246 144 68
W6JZU W6KG W6KH K6KLY W6KNH	314 320	358	161 193 210 169 105 163 138 143 107 65	W6XP K6XT	317 317 312	111 111	
WOLUL	319 319 313	339 339 332		K6WD WB6WKM KE6WL K6WR KK6X NG6X W7XA K6XM W6XP K6XT KD6XY KR7Y W6YVK		327 16 303 288 5 301 271 26 251	0 100 100 100 100 99 2 123 135 224 8 3 7 149 184 249 142 126 160 198 173 56 42
W6KQK K6KQN NB6L		265 260 311 212 162	243 278 299 152 118 100 93 186 40 19	AA6Z WZ6Z W6ZKM K6ZM	311	283 282 333	181 182 250 177 106
WASLLY K6LM K6LQA W6LQC	316 312 307	215 182 150 321 316 309	127 135 159 51 16 100 100 100 100 100	K6ZM W6ZM	315 315 315	345 311 26 356 351	100 100 100 100 100 1 100 100 100 100 73 130 142 317 52 3 178 244 265 152 100
WX5M	312 313 312 314 314	330 330 318 318 318 318 318	154 158 196 115 103	W6ZM WB6ZUC K6ZX	11% %5 CL 5	317 309 28	7
K6MA W8MEP W6MUR	319 311 313	348 322 290 278 357	200 200 300 165 121	de Larry,	NU6X1		
							•

-	WAZ			5 BA	ND W	ΑZ			WPX		-	-	WAZ			5 BA	ND W	IAZ			WPX		
CALL	MIX	PH.	CW.	-10m	15m	20m	40m	80m	-MIX-	-PHC	W.	CALL	MIX	PH.	CW.	-10m	15m	20m	40m	80m	-MIX-	-PH.	-CW.
AAGAD WAGAHF NAGAHF	40 40 39	40 40	40 40									W6NPY N6OC WA6OEY N6OJ	40 40 40	40									
WAGBSS WAGBSS	40	40										W60MR WG6P	40	40 40 40	40	35	36	40	37	31			
W6CF WB6CUA	40 40 40 33	40 40		40	40	40	32	24	893			NGOJO WGOMR WGGP KGPBT KGPKO WGQL NGQR WGRJ KGRK NGRR DJGRX AFGS KGSI K WAGSLO WGTC KGTMB WAGTOO	40 40 40 40 40 40	40				40	-			. 85	0
WW6D W6DPD K6DT NQ6E WD6EKR/M	40	40		30	33	40	38	33	1,416			W6RJ K6RK N6RR	40 40 40	40 40 40		40	40	40	40	40			
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WB6GFJ N6CC	40	40	40						837			N6ST W6TC K6TMR	40 40 40	40	40 38	40 38	40 38	40 40	40 26	37 28			
N6GG W6GO K5GOE WA6HAT K6HHD K6HNZ	40 40 40	40		40	40	40	40	40	1,037	947		WAGTOO WGTUI AEGU KGUD	20 40 40	40	50	30	33	40	29	26			
K6HNZ N6HR WC6I W1ICU W6ISQ	40 40 40			35	39	40	39	28	863			WB6UOM AJ6V K6WD WB6WKM	40 40 40	40									
W6ISQ W6JD	40 40 40	40	· 10						869			KEGWL	40 39 40	40 38									
W6JD N6JM N6JV W6JZU	40	40		35	39	39	28	20	1,742 2,162 911	2	,135	K6XT KD6XY KR7Y W6YVK	40 40 40 40	40	24	28	34	37	6	2	1,526		
W6KQK W6KQK K6KQN	40 40 40 40 40 40	40 40 40 40										K6XM K6XT KD6XY KR7Y W6YVK AA6Z W26Z W6ZKM K6ZM K6ZM	40 40 40	40 40 40		35	37	39	37	30			
NB6L K6L0A		40 40 40								939		W6ZM K6ZX de Larry	40	40									
W6LQC WX6M K6MA W6NKR W6NLG K6NM	40 40 40 40	40							450	450													

-	HON	OR I	ROLL	DXC	C		5 BAND DXCC								:	-
CALL	-MIX	PH	CW.	-MIX	PH.	CW.	-10	m 15	m 20m	40m	80m	160m	-6m	12m	17m	30m
N6AN KA6ING	317			338 180	285	287	21	8 28	0 298	175	117		39	51	24	24
N6JM K6KLY				290 248	278 248	234	19 16	6 22		7.5.5	86 65	15				
WASLLY WX6M	314	314	ļ	215 318	182	150	12	7 13	5 159	51	16 103	17	55 25			
WG6P KE6WL	7			306 219	306 211	283	12	0 16	0 303 6 185	83	118 32	4		3	6	1
WZ6Z				282			18	1 18	2 250	177	106	12				
-	WAZ			5 BA	ND W	IAZ				WARC			WPX	-		-
CALL	MIX	PH.	CW.	-10m	15m	20m	40m	80m	160m	12m	17m	30m -	MIX-	-PH		CW
WG6P	40	40	40	35	36	40	37	31	4	2	6	1			_	
de Larry	, KD6	XY														

KENWOOD TS-940S



COMPETITION CLASS HF TRANSCEIVER CALL FOR LOW, LOW PRICE

ORION BUSINESS OR-2300 INTERNATIONAL, INC.

- Reliable
- Worm Gear Drive Stainless Steel Hardware
- Reversal Delay Circuit & Variable Speed Control
- Fits Most Towers



MA-40 40' TUBULAR TOWER \$ 809 SALE! \$629

MA-550

-\$1369 SALE! \$999 Handles 10 sq. ft. at 50 mph

· Pleases neighbors with tubular streamlined look

■TX-455 SALE! \$1389

- 55' FREESTANDING CRANK-UP Handles 18 sq. ft. at 50 mph
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