

Northern California DX Club DXer



Volume XLIII - Number 12

December, 1990

RON'S COMMENTS

It's that time of year again when the fat man in the red suit brings that new rig guaranteed to work the rare ones through ugly pileups!

If you were at the October "Jim Smith" meeting you may recall that we took a vote of support for a Christmas party at Stanford. We needed a guarantee of 75 prepaid members to obtain the room. The vote was about one half that, so the December meeting will be at Harry's in Palo Alto instead.

I've found that being president presents an endless kaleidoscope of small problems begging for solutions. The one for this month was the DXer. Like fleas, the number of copies printed and mailed has grown larger and larger compared to the number of members as extra copies are requested by members. This has cost the Club extra money that isn't in the budget. A peek into the Bylaws & Procedures Manual states "Family members are defined as full members who are living in the same household. All shall have the privileges and benefits of full members except only one club publication and one club roster per family will be furnished." If you have been receiving more than one copy on a family membership, about the only solution is to change to a full membership or propose a change in the Bylaws. Happy Holidays from Ron, NG6X

CONTEST

A few Raw Scores from the CQWW - CW courtesy of WX6M and WC6I.

Call	Q's	Z's	C's	Score
WX6M	140	77	95	59.8K
AA6TD +	538	134	326	678.5K
N6ST				

WA6AHF	6	6	3	
K6BR +	976	120	258	1M
WC6I, KI6EZ				
AA6PG	1650	132	272	1.9M
WZ6Z	1241	144	370	1.8M
AG6D +	2031	150	371	2.9M
N1EE, N6YK				
K6PU	1127	133	318	1.4M
K6SMH	92	53	70	28.4K
K6MA	370	107	177	295K
N6VV +	1681	146	378	2.5M
K6XV, K6PJY				
N6RO +	2715	174	491	5.1M
W6RGG, N6IG, K3EST				
W6WX +	2400	170	479	4.5M
W6QHS, W6OAT, N6TIB, AF6S, W4TKM				

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NEXT MEETING

Dec. 14th.

The next meeting is scheduled for ~~August 10th~~ August 10th. The meeting will be held at Harrys Hofbrau in Palo Alto. Attitude adjustment is 6:00 P.M. with dinner served promptly at 7:15. The program will be announced later. Club business will begin about 8:00.

CLUB INFORMATION

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. Unless otherwise noted, permission to use any portion of this publication is hereby granted, provided credit is given to the DXer.

NCDXC OFFICERS

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Vice President: Bill Fortes, W6TEX
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Treasurer: Bob Wilson, NQ6X
Director: Morris Brown, N6DJM
Director: Chuck Vaughn, AA6G
Director: Larry Souza, KG6GF

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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:
Ralph Hunt, AG6Q
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: Craig Smith, N6ITW
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. General interest broadcasts at 1800Z Sunday and 0200Z Monday on 14.002 MHz and 7.016 Mhz

MEETING MINUTES

NCDXC BOD Meeting. Oct. 30, 1990 Harry's Hoffbrau, Mountain View

BOD Members present: NG6X, NQ6X, K6MA, N6DJM

- N6AN suggested wireless mike could be used at club meetings to help in questions during presentations. BOD agreed to buy Radio Shack model costing approximately \$70. Ron, NG6X to buy one and check compatibility with existing P.A. system.

- Due to other activities, Ron, W6VG is resigning as Archivist. Ron, NG6X to request Club volunteer in next DXer.

- Proposed February Club meeting in Sacramento on track. Planning continues.

- Approximately 21 members did not renew their membership. List to be published in next DXer.

- Membership questionnaire proposed to determine future direction of NCDXC. Activity level? Additional membership requirements? BOD members to propose suggested topics and questions at next BOD Meeting and then publish in future DXer.

- Bob, NQ6X proposed membership renewal envelopes in June issue of DXer to speed up annual membership dues.

- Morris, N6DJM to research Procedures Manual to determine if Procedures Manual can be revised by BOD or if Club as a whole must revise or approve.

Stan Kuhl, K6MA NCDXC Secretary

NCDXC Members Meeting, Nov. 9, 1990 Harry's Hoffbrau, Palo Alto

- Meeting presided by Ron, NG6X

- DX Convention report by Steve, W6MKM.
 - Bus trip from Bay Area, K6PU handling.
 - BBQ Friday night, new this year.
 - Possible bus trip to Sequoia for ladies trip.
 - Airline connections to Visalia and discounts possible on American and feeder line (Golden Eagle)
 - Programs being set up.

- Feb. 8th meeting in Sacramento. By straw vote the majority in attendance at tonight's meeting would

attend NCDXC meeting in Sacramento.

Special rates at the Santa Fe Inn, 2600 Auburn Blvd for overnight guests. The Sacramento boys have program lined up, even a Saturday golf game is considered.

- Program presentation by Jerry Wells on "Solar Terrestrial Relations".
 - DXAC report by Jim, W6CF
 - Y2 - Y9 deleted (East Germany)
 - 7O & 4W deleted
 - New 7O added effective May 22, 1990
 - Petition for Jarvis Island has not been presented to DXAC yet.
 - Penguin Island petition being considered. Vote expected early next year.
 - No./So. Korea, present DXCC listing as only "Korea". UL7 group wants to put North Korea on the air but country clarification needed.
- Vern, W6ERS proposed NCDXC to sponsor request for North/South Korea DXCC status. Seconded by Louise, KA6ING. Majority approved proposal W6OAT to assemble research material and present to NCDXC.

- First reading of new membership application: Ronald Dolson AA6FV

Second reading of new applications:

Henry Scarlett WA6AVU
Bob Board N6SSM
Gary Shapiro NI6T
Bob Gobrick WA6ERB
Wm. Maurer WB6JJJ

Apple Data base

All second readings were approved for membership.

- Vern, W6ERS commented the HK0TU DXpedition was very commendable, great operation. BOD to send commendation letter to HK people.
- It was noted that DXCC backlog is still about 6 months. 1000 new applicants and over 3500 endorsements. New administrator directing computer entree on new applicants only. Dave, KE6ZE suggested NCDXC could offer some financial help in reducing the back log. It was referred to BOD for direction.
- Suggested that a bus trip to Sacramento be planned as a trial run for Visalia.

Stan Kuhl, K6MA NCDXC Secretary.

TREASURERS REPORT

NCDXC Treasurers Report Oct. 1 to Oct. 31, 1990

Checking Account Activity

Sept. 30 EOM Balance	\$5933.86
Deposits from Dues	2138.00
Other Income	
1759.00	
Sub Total	9830.86
Accounts Payable	2521.78
Balance EOM Oct. 31	7309.08

Savings Account Status

B of A as of 10/19/90	13244.17
American Savings 9/22/90	8928.07
Repeater Fund	
Wells Fargo EOM 10/90	1788.03

Bob Wilson NQ6X
NCDXC Treasurer

FEATURE

SOLAR TERRESTRIAL FORECAST AND REVIEW November 24 to December 04, 1990

Report Based In-Part from Data Obtained from the
Space Environment Services Center Boulder Colorado

SOLAR TERRESTRIAL REVIEW FOR 18 NOVEMBER TO 24 NOVEMBER.

Solar activity over the last week was mostly moderate. Numerous M-class flare's occurred throughout the week. Almost all of the activity was attributed to Region 6368, which dominated the disk with its large size and magnetic complexity.

Region 6368 attained a maximum size of 9,240 million square kilometers (3,610 million square miles) on 18 November, encompassing a total of 107 spots. It is a magnetically complex Beta-Gamma-Delta region. The trailer spot complex was most active and has consistently held a delta-configuration. This region was uncharacteristically inactive considering the size and magnetic complexity that it attained. No major flares occurred from this region, although warnings were issued earlier in the week regarding the potential development of major flare activity.

Region 6368 showed signs of decay on 20 November although it continued to produce a healthy barrage of C-class and occasional M-class flares. The largest flare from this region was a class M3.5/1N at 09:54 UT on 19 November. This region was believed responsible for producing a Type II sweep between 13:46 UT and 13:49 UT on 18 November. The estimated shock velocity was 1,000 km/sec. No terrestrial impacts occurred from this event.

Region 6368 has continued a very gradual decay since 20 November, maintaining a complex delta configuration in the trailing spot group. It has also continued frequent subflaring with modest amounts of C-class flaring. M-class flares have dropped in frequency since 20 November.

Region 6377 (S04W01) has developed rapidly over the past 24 hours and managed to produce a healthy class M3.1/1B Tenflare at 14:25 UT on 24 November.

Other minor discrete radio emissions were observed from this flare. The location of this flare was at S04E04. It lasted 57 minutes, ending at 15:09 UT on 24 November. Region 6368 also managed to produce a class M1.2/SF flare at 23:46 UT on 24 November. Both of these flares produced a SID/SWF.

Geomagnetic activity was unexpectedly low this week. Activity was predicted to be unsettled to active, but maintained almost exclusively quiet conditions throughout the week. Effects from a coronal hole never materialized. As well, predicted solar activity never reached anticipated levels and thus did not produce expected terrestrial impacts.

Auroral activity likewise did not reach anticipated levels. Auroral activity was not visible at middle and low latitudes. Some higher latitudes spotted moderate auroral activity on 18 November, but activity dwindled as the week progressed.

Radio propagation conditions were normal to above normal this week. Relatively strong and stable signals occurred throughout the week at low and middle latitudes due to the unexpectedly quiet geomagnetic and auroral activity. Some increased levels of noise were evident on 18 November due to subsiding geomagnetic activity over higher latitudes. There were numerous short wave fades (SWFs) throughout the week, all attributed to the M-class flare activity from Region 6368. None of the SWF's were intense. The majority of frequencies affected were below 10 MHz. It is not known whether the SWF's were accompanied by VHF enhancements. Ionization levels were likely not high enough to produce any significant VHF signal enhancements, although there were probably localized areas of enhanced sporadic E during these periods.

As of 25 November, two additional SID/SWF's were observed. The first began at 14:12 UT and ended at 15:05 UT on 24 November. The second began at 23:30 UT and ended at 00:31 UT on 25 November. Both of these events were of low to moderate intensity and were flare-related.

SHORT TERM SOLAR TERRESTRIAL FORECAST

Solar activity is expected to remain mostly low with the possibility for occasional M-class flaring from departing Region 6368 and Region 6377. The Space Environment Services Center is continuing a condition YELLOW alert status for potential PCA and proton events. Region 6368 continues to sport a Beta-Gamma-Delta magnetic configuration with particular delta complexity in the trailer spot group. Probability

for a major class X flare is stationary at 10% over the next two days, dropping to 5% on 27 November with the passage of Region 6368 beyond the west limb. There is a 5% probability of a major proton flare from this region. Although these probabilities are low, they warrant attention. The solar flux is expected to drop quite dramatically with the passage of Region 6368 beyond the west limb on 26 and 27 November.

Geomagnetic activity is expected to remain mostly quiet until 26 November when models suggest activity should increase to unsettled levels over all latitudes with a risk of active periods over middle and high latitude regions. No significant activity or storming is expected, however. Conditions should return to quiet to unsettled levels by 28 November.

Auroral activity will be dormant until near 26 November when some increase in activity may occur. Activity will remain confined to the high latitude regions where it is expected to be mostly of low intensity with possible bursts of moderate activity. Auroral activity is then expected to decline to non-visible levels on 27/28 November and remain quiet throughout the remainder of the week.

HF radio propagation conditions should be quite good this week, with only a slight increase in noise and flutter expected near 26/27 November. The expected increase in geomagnetic and auroral activity should not have much of an impact on HF radio communications. So with the exception of 26 and 27 November, HF communications should be above normal on most of the other days this week. Sporadic degraded HF propagation is possible on the sunlit side of the earth due to expected persisting SIDs/SWFs caused by minor solar flaring.

VHF radio propagation should remain normal this week. There is the potential for sporadic DX contacts during SID periods which are expected to occur on the sunlit hemisphere of the earth this week due to minor flaring from departing Region 6368 and Region 6377. Other than these slight possibilities, conditions will not be sufficient to provide wide-spread DX opportunities this week.

COLUMN

By Steve Brunt, WC6I

The Morning Show . . .

	40 Meters		
UMQMO	7004-5	1700Z	Zone 17
9MSZR	7005	1140Z	
T33T	7004	1210Z	
U29XYV	7003	1400Z	Zone 17
	80 Meters		
SM5GDX	3501	1450Z	Zone 15
SM4AAH	3780	1440Z	Zone 15
SM5EDX	3788	1410Z	
	20 Meters		
UH9BWD	14005	1520Z	Obl 193
		Honorable Mention	
XZ2MR	21014	0240Z	??

KG6GF continues to lead the pack in working 80 meter DX. He's running two co-phased verticals primarily pointed S/Long to Eu. W6TSQ leads pack on 40M running only a dipole, but with Mt. Tam as reflector, he works stuff the rest of us don't hear. WC6I down to needing to work only 5 more Oblasts on CW to have 'em all. W6PHF still same old self. KA6ING continuing as valuable liason between packet system and 2 meter voice repeater. Thanks Louise. Rubin and KN6J still chasing DXCC on RTTY. And then there are the 160 meter guys. Their latest quarry seems to be T33T and T33R. Not much luck. W6TC, AI6L, WC6I still chasing 5 band WAZ and your column editor chasing Mt. Athos. (He did catch it! zx).

DXAC COMMENT

DXAC Report

With the OH2BH/N7NG Penguin Island DXpedition still fresh in our memories, the time is ripe to bring everyone up to date on the DXCC country status of those smelly little spots.

A petition for new country status for the Penguins was submitted by KC1AG way back in June. It has been under active discussion by the DXAC ever since. Several months ago it was decided that maps with better resolution than the map which had been provided were required to help in the decision. Maps were requested from South Africa by KC1AG. After several contortions, including a missent shipment, the maps finally arrived in the U.S. a few weeks ago. They are being reproduced now, and should be in the hands of the DXAC within a week or two. Once the maps are on hand, and if no other questions come up, the vote could come very quickly. Realistically, though, we're still at least a month or two away from a decision.

DXCC Honor Roll - 323 or 324?

Some sharp-eyed individuals have noticed what seemed to be a discrepancy in the Honor Roll listing which came out in November QST. The top dogs on the Honor Roll had 323 countries. Yet everyone KNOWS we had 324 countries on the list up to the time of the recent changes in Yemen and Germany. Was something wrong?

Nope, everything is OK. Prior to the actions of Yemen and Germany, the DXCC list did have 324 countries. But QSLs for the latest one, Walvis Bay, weren't accepted by the DXCC Desk until June of this year, so the maximum number of CREDITABLE countries in March was only 323. The Honor Roll listing in November QST was based on submissions made in March. That means the top of the Honor Roll was at 323, not 324. Put another way, right now 312 countries will land you on the bottom rung of the Honor Roll. Next March it will take 313.

DXCC Country Totals Today

Since Walvis Bay was added, we've had additional changes to the DXCC list. The two Yemens were deleted, a new Yemen was added, and East Germany was deleted. That's one new one and three deletions, a net decrease of two to 322. However, Yemen QSLs

won't be accepted at Hq. until March - if you're fortunate enough to have one by then! Therefore, right now, today, it only takes 321 for Honor Roll standing. When March rolls around it will take 322 - unless other changes take place in the meantime.

Jim, W6CF

PROPAGATION

propagation forecast bulletin 47 arlp047 from ed tilton, w1hdq spring hill fl november 19, 1990 to all radio amateurs

The solar flux was down to 140 on November 2 but it rose rapidly, reaching 215 only five days later. It dropped back to 186 by November 13, but recovered quickly again, rising to 223 by the 17th. This was the highest flux reading since the middle of October.

Two large spot groups that came into the east limb of the sun on the 14th seemed to be the main source of the rise. Earlier groups that were responsible for the 215 peak on the 7th disappeared around the west limb earlier in the month.

Neither of the flux peaks was anything like the outbreak that produced the surprise peak of 315 back in August, but that came at the wrong time of year to do much good for DXers.

If the rest of november follows recent monthly trends, we can expect lower flux levels this week, and probably through the rest of the month. This

Continued Page 7

ADDRESS CHANGES

DXers on the move. New and revised addresses.
New address:

Thomas G. Wood N6DX
6566 North Garden
Fresno, CA 93710

Street number change only:

Jay & Jan O'Brien W6GO/K6HHD
6851 2nd St.
P.O. Box 700
Rio Linda, CA 95673

Phone: (916) 991-2010
Fax: (916) 991-1000

Changed addresses:

Stephen Salmon AA6LF
2915 Shasta Rd.
Berkeley, CA 94078

E.D. Jellison N6OSF
2319 Olympic Ave.
Menlo Park, CA 94025

Phone changes:

Jim Duffy WA6AUE (916) 587-2730

License changes:

E.W. Merritt KF6EN to Extra

Elliot Pisor K6ILM to Extra

Propagation - continued from Page 6

would have little effect on the major DX bands, but it may slow down DX activity on 50 MHz, and possibly 28 MHz, especially in the last days of the month.

American sunspot numbers for November 8 through 14 were 199, 156, 125, 98, 108, 110 and 115 respectively, with a mean figure of 130.1. Solar flux numbers as reported by WWV for the same time period were 212, 202, 193, 197, 194, 186 and 201, with a mean figure of 198.

CLASSIFIED

WANTED (Standing Order)

Ideas for future club programs. Provide topic, contact name and telephone number. Forward to any club officer. Thank you. de W6TEX

WANTED

Feature items for future DXer issues. One to two pages of text plus illustrations is the best size. If you don't come through, you will be faced with more ARRL Letter reprints. de K6ZX

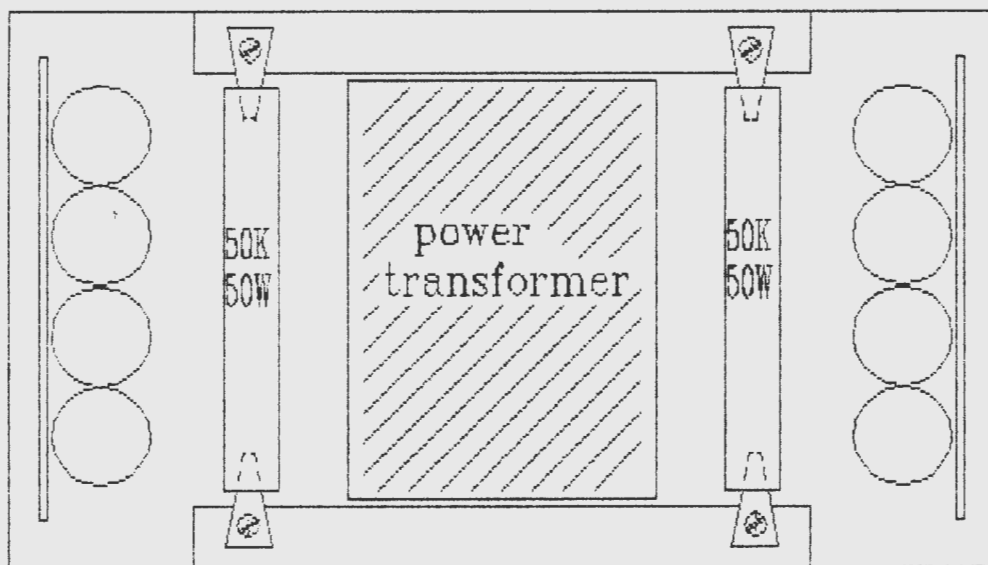
TRIVIA

With some alarm, we note that the following DXers chose not to renew their NCDXC membership this last year!

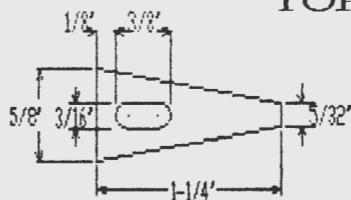
KF6A Phil Sanders
NA6B Robert Harmon
KE6BN Ed Daley
W6CFK Richard Barrett
K6CN Guy Ottinger
K3EST Robert Cox
KB6HT Raymond Miller
W6IAE Alex Morton
K4II Wm. G. Baird
W6JRY Jerry E. Fuller
W6LVY Dennis Trimble
W6MZ Jack Quinn (withdrew)
W6OMR Irv Astmann
K6PBT Charles Strobac
KR6Q Calvin Lewis
N6QR Adam Menten
W6REC Duane Ausherman
KD6S Anselmo Rodruquez
NG6T Robert Bignami
AE6U Scott Williams
KJ6V Frank Pfeiffer (withdrew)
KD6VS Charles Leader
N6VV Lew Jenkins

DRAKE L-4B LINEAR POWER SUPPLY UPGRADE

Drake has modified their L-4 PS Power Supply to prevent arcing between the 50K, 50W Bleeder Resistors and their mounting hardware. The Rectifier Diodes have also been changed to 3 Amp types and 150K, Half Watt, Resistors have been paralleled across each of these. The new method for mounting the Bleeder Resistors is illustrated below, using "pie-wedge" brackets instead of long bolts as was previously used for this purpose.



TOP VIEW OF POWER SUPPLY



At left is a pattern for the "pie-wedges", which can be made from 1/16" aluminum stock, or ordered from R. L. Drake. The company also can supply the Diode Strips with Diodes and Resistors already mounted.

MOUNTING THE 50K 50 WATT RESISTORS

1. Remove the 50K 50W Resistors "L" mounting brackets, mica washers and long mounting bolts now holding the resistors.
2. Save the bolts, washers and nuts that secured the "L" mounting brackets. The remaining hardware will not be used.
3. Using the bolts, washers and nuts that secured the "L" mounting brackets, mount the 50K 50W Resistors using the "pie-Wedges" as shown above.

R. L. Drake can be reached at Telephone Number:
(513) 866-3211 (Located in Miamisburg, Ohio 45342)

Sacramento Dinner Meeting Feb. 8th & 9th

K6DR "Tony" and the Sacramento gang are busy at work to make this and enjoyable weekend. The Nov. DX'er has specific details regarding this event and the special overnight rate at the Santa Fe Inn. If we use more than 15 rooms "Tony" say's we get a FREE full breakfast saturday morning. This is a dinner meeting and it is expected that all will have dinner to meet the free meeting room requirement. (Dinner \$15.00 see res. form below)

Program: Attitude adjustment hour 6-7p
Dinner 7p
Business Meeting 8-10p
- New/Old Business
- Speakers: Pete Onnigian W6QEU
" Whats New in Yagi Antennas"
Jay O'Brien W6GO
" Today's New Developments in Packet Clusters "
- Early Dinner Reservation Prize Drawing
- Drawing NCDXC
(Early Res. Prize H144-15 & 15 El. 2 Mtr. Yagi)

Feb. 9th Activities: Open house at W6GO/K6HHD Antenna Farm.
Golf, 10am - Haggin Oaks Golf Course
(\$14.50 plus carts if required)
Visit Sacramento "Old Town", Railroad Museum, Shopping etc.

This will be fun event so get your reservations in early so we may estimate the room size. Note: You make you own motel reservations and ask for the special rate of \$38.00.

Bay Area interested golfers contact W6TEX 415-538-5134

More later....Please fill out reservation slip and mail today!

SACRAMENTO DINNER MEETING RESERVATION SLIP Santa Fe Inn - Feb. 8th & 9th (See Nov. DX'er)

Name..... Call..... Overnight Stay?

Dinner Choice: Chicken Tarragon Roast Prime Rib Vegetarian

Activities: Feb. 9th Visit to W6GO/K6HHD Ant. Farm Golf

Dinner is \$15.00 and is expected to cover banquet room expense. If for some reason you cannot have dinner, a donation of \$5.00 would be appreciated.

Make check(s) payable to Ed Merrit 2512 Cambon Way Sacramento, CA. 95821
.....

CALL	WAZ			5 BAND WAZ					OTHER ZONES					WPX		
	MIX	PH.	CW.	-10m	15m	20m	40m	80m	160m	12m	17m	30m	06m	-MIX-	-PH.-	-CW.-
3TMB	40	40	38	40	40	40	32	28								
WA6T00	20															
W6TSQ	40			40	40	40	40	40								
W6TUI		40		30	33	40	29	26								
K6UD	40															
WB6UOM	40															
AJ6V	40															
K6WD	40															
KI6WF	40	40	2	39	40	40	27	22	2							
WB6WKM	40	40														
KE6WL	39	38														
K6WR	40	40														
K6XM	40															
K6XT	40	40														
KD6XY	40	40	24	28	34	37	6	2								
KR7Y	40															
W6YVK	40															1,526
AA6Z	40															659
WZ6Z	40	40		35	37	39	37	30								
W6ZKM		40														
K6ZM	40	40														
W6ZM	40	40														
K6ZX	40															

de Larry, KD6XY (11/90)

DX AND WAZ LADDER REPORTS:

For the benefit of new members to the club, who may have questions regarding these reports, I will try to take the mystery out of the procedure to use for submitting figures.

It is easier if your figures are listed under Column Headings as shown in the actual reports, thus: HONOR ROLL MIXED, PHONE, etc., or DXCC, 5 BAND DXCC, PHONE, 10m, 15m, etc. etc. This will make it easier for me to avoid mistakes.

Figures submitted for the Honor Roll Columns, are for contacts with countries as presently shown on the ARRL Countries List. These will change from time to time as deleted and new countries are announced by the ARRL. DXCC, 5BAND DXCC and OTHER listings, as well as Honor Roll contacts, do not have to be ARRL confirmed, but you must have a QSL Card confirming the contacts.

Submit your figures to me, at the address listed elsewhere, keeping in mind that I use your figures in every case. Usually the Ladder Reports will be issued approximately every three months in the DXer.

There were 23 updates, 11 deletions and 5 new submissions this month. The Country Count is 322 at present.

de Larry, KD6XY

CALL	HONOR ROLL			DXCC			5 BAND DXCC					OTHER BANDS				
	-MIX	PH.	CW.	-MIX	PH.	CW.	-10m	15m	20m	40m	80m	160m	-6m	12m	17m	30m
6NKR				289												
W6NLG	316			321	311	100	100	100	100	26	6					
K6NM				300	200	191	100	135	258	152	34					
W6NPY				316	200	265	200	200	200	178	139					
N6NXV				258	258	29	140	152	166	45	10					
WA6O				217			88	50	123	2	16					
W6OAT				341	314	308	249	280	316	255	184					
N6OC				303	300											
WA6OEY				227			71	60	170	20	8					
N6OJ				329	275	105										
K6OJO	312	311		328	327		187	250	309	17	12					
W6OSP				320												
WB6OTB				271												
K6OZL				332			100	100	100	100	100					
WG6P				306	306	283	184	210	303	207	118	12		3	6	1
W6PHF	350	336		318												
K6PKO				308	301		270	175	185	97	112					
K6PU	321	320		351	336	290	200	200	300	200	100					
AG6Q				318	299	222	141	172	229	129	110					
KB6Q				294												
W6QDE				281	138	243										
W6QL	315			337	263	69	114	161	201	111	103					
N6RC				213												
W6RJ	316			345			100	100	100	100	100					
K6RK	320			332	319	303	100	100	100	100	100					
K6RQ	317			354			91	182	285	126	71					
N6RR				289			116	210	176	129	88					
K6RUW				270	242	120	100	100	100							
DJ6RX	315			336			215	271	303	227	185					
AF6S				312		301	247	262	286	192	128					
K6SIK				286	282	140	183	186	262	128	120					
WA6SLO		314			319		270	292	318	211	208	6				
N6ST	320			327	304	244	180	211	291	129	52					
W6SYL						220										
8TC	324		321	336		321	225	225	270	240	170					
6TER				269												
W6TEX				312		280	100	100	100	100	100					
K6TMB				308	304	248	215	245	292	140	116					
WA6TOO				251			58	84	167	6	6					
W6TPH				272	238	187	141	181	172	110	100					
W6TSQ				350			277	300	300	304	254					
W6TUI				275	274		109	125	187	125	116					
K6UD	308			318	306	207	240	244	244	176	147					
WB6UOM					300											
W6UR				264	159	158										
K4UVT				287	208	97	31	70	275	53	7					
AJ6V	317			322	229	263	148	166	255	134	62					
K6WD	312			325		272	100	100	100	100	65					
KI6WF				300	300	2	225	270	294	143	62	2			10	
WB6WKM				311	100	100	100	100	100	100	63					
KE6WL				219	211	153	120	166	185	83	32	4				
K6WR	324	324		354	354		100	100	100	100	100					
WA9WYB				310	298	174	100	100	100	100	76					
KK6X				281	227	255										
NG6X				250												
NQ6X				312	309		100	100	100	94	96					
W7XA				325			277	298	309	174	137					
K6XM				267	209	222	163	179	246	144	68					
W6XP	321	321		337	337											
K6XT	312			327		160	100	100	100	100	99					
KD6XY				305	288	54	124	137	225	8	3					
KR7Y				301	271	267	149	184	249	142	126					
W6YVK					251		160	198	173	56	42					
AA6Z				317												
WZ6Z				298			194	205	267	194	118	14				
W6ZKM		311			333		100	100	100	100	100					
K6ZM	315			345	311	261	100	100	100	100	73					
6ZM	315	315		356	351		130	142	317	52	111					
36ZUC			314	326		325	187	248	301	158	107					
Δ6ZX				309		287										

de Larry, KD6XY (11/90)

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	-MIX	PH.	CW.	-MIX	PH.	CW.	-10m	15m	20m	40m	80m	160m	-6m	12m	17m	30m
AA6AD				271	181	252	109	176	258	54						
W6AED					325			100	100							
W6AEO					241											
N3AHA				222	210	90	73	118	153	35	12					
WA6AHF		319			338		100	100	100	100	100					
KG6AM				288	272	180	153	205	248	40	25					
N6AN	318			339	288	287	281	281	307	177	118		68	100	41	
K6ANP				316	199	211	133	144	199	110	105					
KA6BIM				196	190	59	108	131	141	33	8					
W6BJH	311			327	192	282	120	117	187	117	100					
WA6BSS				290	290	2	131	164	241	52	21					
W6BSY	323	322		366	360											
KB6BW					251		89	89	151	26	2					
K6BWX				225	1	224										
W6CF	315			342	294	185	204	239	306	178	138					
W6CTL				325	2	256	179	168	322	89	11					
WB6CUA	318			324	304	294	100	100	100	100	96					
WW6D				215	108	193	62	118	165	83	37					
K6DC	315			359												
W6DPD				317	317											
K6DR				248												
K6DT	312	307		340	320	293	229	251	328	153	121					
W6DU	312			331	282	302	212	237	302	152	103					
NQ6E				240		207	116	127	196	136	118					
WD6EKR					303		170	234	291	78	72					
WD6EKR/M					240		79	193	149	2	2					
W6ERS	321			351												
W6ETR						237										
WB6EXW				303			100	100	100	50	11					
W6FAH					302	213	201	221	285	148	140					
K6FD				296	271											
W6FGD				330	275	289										
K6FO				277	185	239	134	164	235	125	102					
KB6G				253		229										
KD6GC				225												
KG6GF	314			319			70	120	210	293	170					
WB6GFJ				101	300	70	161	192	246	105	50					
N6GG				301												
W6GO	317	317	311	331	331	316	260	290	315	245	210					
K5GOE				315	307		194	100	100	100	90					
WA6HAT	312			320		243										
K6HHD	312			316	311	23	209	176	223	43	40					
K6HNZ					290		209	242	254	125	107					
N6HR	308			329	315		100	100	100	100	100					
W6HXW		323			323											
WC6I				305			173	181	236	175	74					
W1ICU		316			335											
KA6ING				212			212						39			
W6ISQ	315	312		348	331	207	279	189	219	122	254					
KN6J												100				
W6JD				322	218	298				184						
N6JM				290	278	234	196	221	255	119	86	15				
N6JV	322			330	279	318	253	247	298	249	202	67		54	60	52
W6JZU	312			328			75	115	255	22	12					
W6KG	314			352	290	108	161	193	210	169	105					
W6KH	323			362												
K6KLY				286	286	9	185	165	172	115	75					
W6KNH	319	319		339	339								59			
W6KOE		322			341											
W6KQK				310	295	287	243	278	299	152	118					
K6KQN				265	260											
AI6L				304												
NB6L				311	212	162	100	93	186	40	19					
WA8LLY				269	251	223	202	211	208	73	18		47	45		
K6LM	316	312	307	321	316	309	100	100	100	100	100					
K6LQA	312			330												
W6LQC	320	320		337	337	67	100	100	100	51	87					
K6LRN				290	180	204										
WX6M	314	314		318	318	119	154	158	196	115	103	17				
K6MA	324	315		353	330	303	230	234	300	185	127			60	105	52
W8MEP				301			100	100	100	41	27					
W6MUR	313			357												
W6NA						271	140	190	251	192	109					

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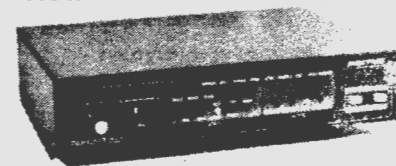
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