



HANK'S SWAP SHOP

Hank Davis, W6DTV 7822 Washington Avenue
Phone 823-7885 Sebastopol, CA 95472
(Noncommercial ham ads are printed for free)

WANT: MATCHBOX antenna tuner, KW size.
Max N6BAA 829-0238.

WANT: 440 MOBILE RIG. Art W6LGQ 762-2132.

MFJ-1270 TNC \$75. Bob N6RMW 542-5209.

NEED MANUAL FOR YAESU 401B to copy & return.
WANT 250/300W ANT TUNER. Bill N6GHG 431-8636

WANT: 1955/56 ARRL HANDBOOK. Rick K6ZWB
542-6907.

SP600 SUPERPRO receiver.
ICOM 71A receiver, speech synt, remote cont.
Phone for price. Tracy WB6TMY 527-8124.

TEN-TEC 30 MTR MOBILE ANTENNA \$10.00.
GORILLA BANANA PRINTER dot matrix, opr.
manual. Hank W6DTV 823-7885.

MOTOROLA MICOR lowband, 100 watts, cables
and manuals. \$100 each. Vince N6UMC
526-4506 eve, 795-9444 day.

MOTOROLA 450 MHZ BASE ANTENNA. Kent
Dreitzler 523-1700.

DENTROL GLA-1000-B amplifier \$300. Mike
N6DBZ 823-0697.

DRAKE R4B, T4XB, speaker, power supply,
manual and cables, Shure 44 mike, new
finals. \$400. John W6TLK 833-1873.

BUTTERNUT HF5B beam, 10-20M, manual \$115.
HUSTLER VERTICAL, 40-10M, manual \$75. Steve
KB6LSB 573-3507.

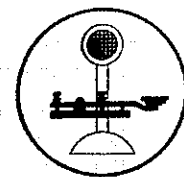
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PO Box 116
Santa Rosa, CA 95402

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PERMIT NO. 658

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JOHN BRECKENRIDGE
WB6FRZ
574 WILD OAK DR
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SHORT SKIP



Sonoma County Radio Amateurs, Inc.

DECEMBER 1990 Club Station
W6LFFJ

P.O. Box 116
Santa Rosa, CA 95402

Repeater Station
WB6PVS

VOL 15 # 12

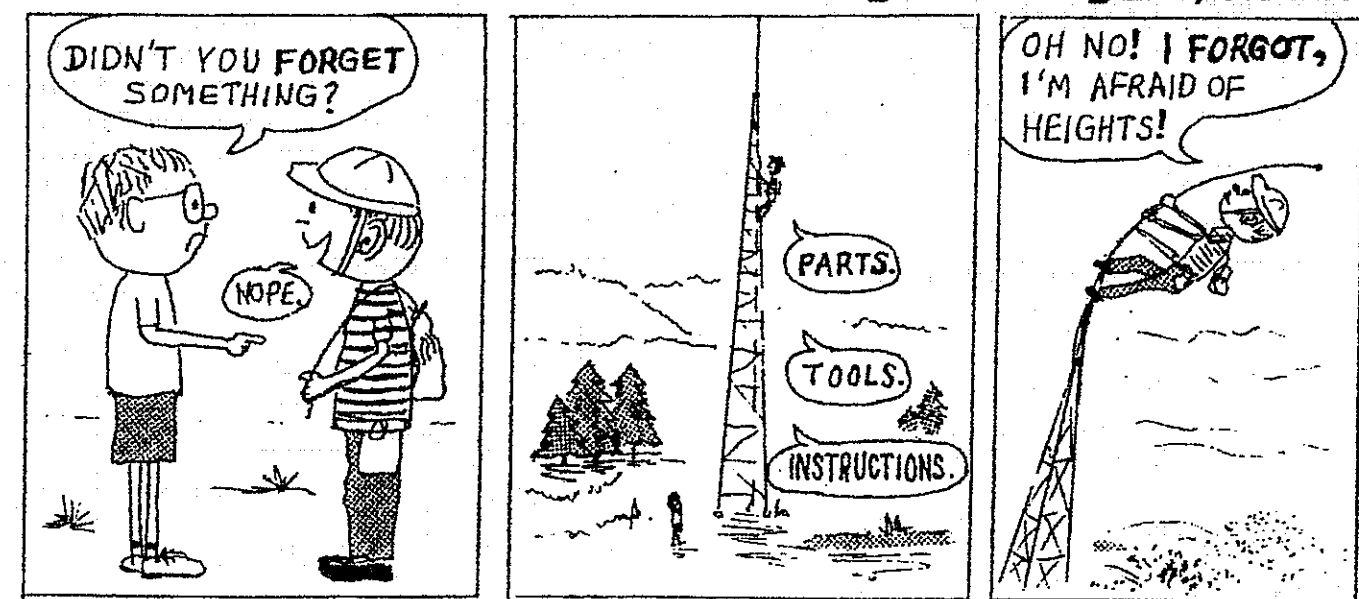
ELMER

by Rich Regent, K9GDF

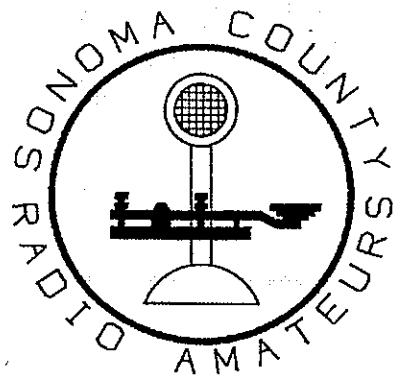


ELMER

by Rich Regent, K9GDF



Tnx ARNS



OFFICERS FOR 1990

PRESIDENT: John Wallack W6TLK 833-1873
VICE PRESIDENT: Jim Pelmulder N6PTM 823-7947
SECRETARY: Alan Bloom N1AL 538-7115
TREASURER: Philip Gaul KC6BSI 544-2572
MEMBER-AT-LARGE: John Breckenridge WB6FRZ 838-6398
ACTIVITIES CHAIR: Chuck Sabin N6DDK 795-2371
REPEATER CHAIRMAN: Jim Rutherford WB6PER 526-2972

SHORT SKIP STAFF:

EDITOR: Alan Bloom N1AL (e) 538-7115
 1578 Los Alamos Rd, Santa Rosa, CA 95409 (d) 577-3981
CIRCULATION MGR: Harvey Lawrence K6KZ
ADVERTISING MGR: John Wallack W6TLK 833-1873
SWAP SHOP: Hank Davis W6DTV 823-7885

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

ACTIVITIES COMMITTEE:

PUBLIC SERVICE: Bill Splaine N6GHG 431-8636
 (days) 577-2913
EDUCATION: John Breckenridge WB6FRZ 838-6398
 +WD6CKP WB7CNJ WB6TMY WA8LLY
TVI/RFI: John Lynch W6CCY 823-1357
FLEA MARKET: Chod Harris WB2CHO 526-2198
AWARDS: Steve Lund WA8LLY 823-4544
VEC EXAMS: Steve Lund WA8LLY 823-4544
 +N1AL WN6D WW6D WW6F WB6FRZ K6UXO
REFRESHMENTS AT MEETINGS: Bob Olsten WD6DPE
GREETER AT MEETINGS: Jane Vanderslice N6NTB
RAFFLE AT MEETINGS: Chuck Sabin N6DDK
MEMBERSHIP LOTTERY: Bob Scolnick K6GEV
QSL MANAGER: Doug Bender WW6D

REPEATER CONTROL OP'S:

WD6CKP Hoppy 542-6750 N6ONZ Garry 584-3425
 WB6PER Jim 526-2972 W6TLK John 833-1873
 WB6UAZ Kathi 544-7943 WN6D Jim 544-7943
 N6PTM Jim 823-7947
PACKET COMMITTEE: Al N1AL, Jim WN6D

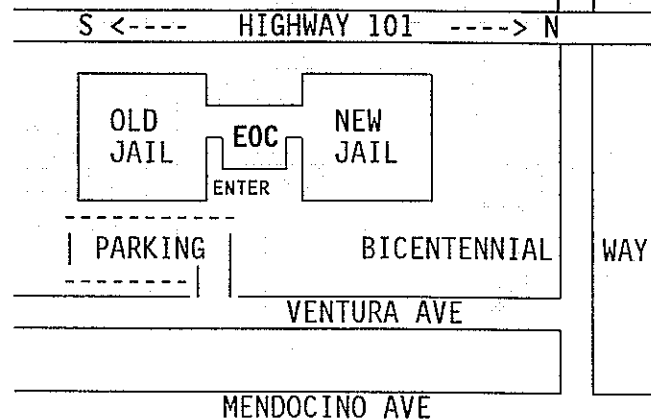
ARE YOU NOT AN SCRA MEMBER?

IF SO, then this is a complimentary copy. Our club is involved with almost every area of Amateur Radio: Repeaters (13/73), Field Day, license classes (Novice through Extra), volunteer exams, RACES, DX programs, packet (145.03), hidden xmtr hunts -- you name it. We invite you to attend our next monthly meeting (see below) or check into the Tuesday night SCARS net on the 146.13/73 repeater at 7:00 PM. You will hear the latest Westlink Amateur Radio News broadcast, announcements of SCRA activities, and a Swap Shop. If you would like to join SCRA, please refer to the dues listed below. Hope to have an "eyeball" QSO with you at the next meeting! 73 ...

CLUB MEETINGS:

7:30 PM, 1st Wednesday each month at the EOC (Emergency Operations Center, see map below) Anyone interested in ham radio is welcome.

NEXT MEETING: (None in December)
CHRISTMAS PARTY: No-host dinner Dec 12
 Cattlemen's Restaurant, 7 PM (6PM drinks)
DUES: \$12 per year, plus a one-time \$4.00 initiation fee. Dues are pro-rated \$1/month for new members. With membership, comes an SCRA call/name badge. Family membership: \$18



SHORT SKIP ADVERTISING RATES:

Business cards: \$10

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

Pre-printed inserts: \$32/sheet

Guaranteed circulation: 200/month
 AD DEADLINE: 10th of previous month

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SCRA MINUTES

November 7, 1990



The meeting was called to order by President John Wallack W6TLK at 7:30PM. Other officers present: Vice President Jim Pelmulder N6PTM, Treasurer Phillip Gaul KC6BSI and Members-at-Large John Breckenridge WB6FRZ and Chuck Sabin N6DDK.

VISITORS were introduced by Jane N6NTB: Tom Johnson, Ken and Linda Parker WB6RLA and WB6TMM, Dave New AA6YX, Pete Belie KC6OCQ, Rick Mahan, Clyde Anderson N6MSG, George King KG6BW, and Del Beaupre WW6S.

The **MINUTES** were approved as printed in *Short Skip*. m/s N6FAX/N6FYV

The **TREASURER'S REPORT** by KC6BSI shows \$2372.25 in the General Fund and \$755.43 in the Repeater Fund. Approved m/s N6VUC/WB6MJB

REPEATER: Jim WB6PER reports no current problems.

PUBLIC SERVICE: Bill N6GHG read a complimentary thank-you letter from one of our "customers".

EDUCATION: John WB6FRZ reported 3 new licensees as a result of recent classes.

ACTIVITIES: John W6TLK reported that there were no plans for a traditional Christmas party. Jim WB6PER proposed having a no-host dinner. Those interested would pay their own way; no work party or committee would be burdened with preparations and cleanup. A show of hands indicated enough interest to proceed (10-15 people). Jim WB6PER will organize, find a place, etc.

OLD BUSINESS: Jim N6PTM asked for volunteers to be net control operator. Lou N6YMQ will do it for November and Susan N6IRJ will take December.

ELECTIONS: John W6TLK posted the recommendations of the Nominating Committee:

President: Jim N6PTM

Vice President: Brian N6IIV
 Secretary: Al N1AL
 Treasurer: Merlyn N6VUC
 Member-at-Large: Phil KC6BSI
 Bob K6GEV
 Mike N1DJE

Nominations were opened to the floor, and John W6TLK was nominated for Member-at-Large. m/s WB6PER/W6DPE

Ballots were distributed and collected. W6DPE and N6GHG counted votes during break.

John W6TLK received the most votes for MAL. There was a tie for the other position between Phil KC6BSI and Bob K6GEV, but Bob Stepped aside, resulting in the election of W6TLK and KC6BSI as Members-at-Large.

AWARDS: Awards Chairman Steve W8LLY announced the confirmation of WAS by WB6MJB.

The **MEMBERSHIP LOTTERY** was won by N6MMG who was not present. \$14.52 will be carried over until next month.

Meeting adjourned 8:32 PM. m/s N6DDK/N6VUC
 Respectfully submitted by Vice President Jim Pelmulder N6PTM.

TREASURER'S REPORT

FOR MONTH ENDING October 31, 1990



ACCOUNT	REVENUE	EXPENSE
Refreshments at meetings ..	8.51	9.63
Dues and Initiations	73.00	
Fund-Raisers (Flea Market).1400.30		57.29
Short Skip Newsletter		66.51
Amateur Radio Newsline		5.70
Membership Supplies.....	3.50	
	-----	-----
	1485.31	139.13
ASSETS:		
General Fund Account	2334.25	
Cash/checks on hand	38.00	
Total General Fund	2372.25	
Total Repeater Fund	755.43	

- de KC6BSI

EARTHQUAKE POREDICTION

by Vince T. Migliore N6UMC

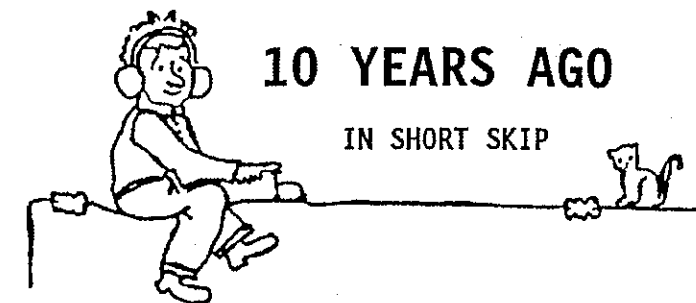
In the last few weeks, some studies have been published suggesting earthquakes may be preceded by Ultra-Low-Frequency (ULF) electro-magnetic waves. The strongest have been reported in the .5 to 10 Hertz region. (Yes, Hertz, not KiloHertz!)

I love to tinker, and I was wondering if there were some way to build a monitor that could detect such ULF disturbances. Below is a list of some of the articles I've come across. Still needed is a discussion of antenna design and how to cancel out man-made noise.

Amateur astronomers make a real contribution to that science through individual efforts. This field (ULF monitoring) might just prove to be an asset to geologists. Any hams interested?

1. *Radio Earth: The Radio-Seismic Connection.* Joe Tate, Whole Earth Review, Fall 1990.
2. *Sferics: A beginner's Guide to Whistlers, Tweeks and Other Natural Radio Sounds and how to hear them.* Mike Mideke, Whole Earth Review, Fall, 1990.
3. *Build the "Whistler" VLF Receiver.* Tom Fox, Popular Electronics, July, 1989.
4. *Amateur VLF Observations.* W. C. Johnson, QST Magazine, March 1960.
5. *ULF, ELF and VLF Electromagnetic Field Observations Close to the Epicenter of the 7.11 Loma Prieta Earthquake: Possible ULF Precursors.* A. C. Fraser-Smith, A. Bernardi, P. R. McGill, M. E. Ladd, R. A. Heliwell, and O. G. Villard, Jr., STAR Laboratory, Stanford University.

Vince N6UMC has upgraded from Tech to General. He'll still use the same call.



10 YEARS AGO

IN SHORT SKIP

Len Gerald K6ANP was the new President for 1981. Has anybody heard anything from Len since he moved back east? Other new officers were VP: Lyman WB6SMY, Sec: Bob W6DPE, Treas: Doug N6DHT, Board: Al N1AL, Steve KD6GC, and Chuck N6DDK. Hank W6DTV was the new *Short Skip* Editor replacing Lyle N6BLN (now WW6F).

The club treasury, as of the November meeting, was \$185.19. Wow.

The club participated in 3 Public Service events in November 1980.

CHRISTMAS PARTY

The Christmas Party is a no-host dinner December 12 at Cattlemen's restaurant in Montgomery Village. Social hour is at 6 PM. Dinner at 7. No reservations required.



KJ6FY BBS NEWS

The BBS is now running multi-connect software that allows up to 5 users on the system simultaneously.

NEW 441.50 MHZ BBS USER PORT AVAILABLE:

Users can access this port via a gateway on 145.05 located in Angwin and operated by Ralph WB6PMS.

Users in Benicia can access the 144.93 BBS port via 223.56 MHz digipeaters (see below).

You can also access a NET/ROM node on 144.93. The node is KJ6FY with an alias of SOLANO. Enter ? to get the command list.

GATEWAYS TO THE BBS:

144.93 MHZ: C KJ6FY-1 V WA6LIA-1
(Santa Rosa into 144.93 port)
145.05 MHZ: C KJ6FY-1 V VIP1G
(Angwin into the 441.5 port)
223.56 MHZ: C KJ6FY-1 V WB6ABE-2 or:
C KJ6FY-1 V WA6NVT WB6ABE-2
(Benicia into the 144.93 port)

Tnx KJ6FY

AO-21 LAUNCH IMMINENT

AMSAT-DL officials are expecting a November 29, 1990, launch of RMI/RUDAK-2, give or take one day. After the launch of Radio M-1 (RMI), this new Oscar will also be christened Amsat-Oscar-21 (AO-21) to emphasize that it was designed and built by Radio Amateurs for the betterment of communications between Radio Amateurs worldwide.

Stay tuned to W1AW, Amsat nets and other ANS sources for the latest information concerning AO-21. W1AW thanks all at Amsat HQ, the Amsat News Service and DB2OS for this bulletin information.

WANT A NEW CALLSIGN?

In a Public Notice dated April 19th, the FCC explained how callsigns are issued under their current system. The text was the same as in past Public Notices on this subject, except that one phrase was left out.

These notices had always included the instruction that no callsign change requests would be honored unless an upgrade to a new callsign group occurred, or until the licensee changed callsign districts.

Well, that statement is gone, which means that anyone can request, at any time, a callsign change from within the same callsign group of their current license class. No SPECIFIC callsign may be requested -- they are still issued only in sequence.

At present, the FCC does not go back and re-issue retired callsigns, so we're going to run out of desired callsigns more quickly as a result of this change. There already are no more Group C (Tech/General) callsigns in the 6th district. N6ZZZ was issued in July.

Tnx ARRL VE Express

STS 35 LAUNCH IMMINENT

According to sources at the Johnson Space Center, the STS-35 Astro-1 mission carrying Ron Parise, WA4SIR, and the latest Shuttle Amateur Radio Experiment, SAREX, is scheduled for launch during the night of December 1 and 2, 1990. The exact launch time within the two hour window had not been decided upon as this bulletin was being prepared.

Stay tuned to W1AW, Amsat nets and other ANS sources for the latest information on the STS-35 Sarex mission. W1AW thanks all at Amsat HQ and the Amsat News Service for this scoop. Tnx W1AW bulletins

KA6SSL

Rich Freitas KA6SSL became a silent key September 29, 1990 in a tragic antique aircraft crash at Clear Lake.

Rich loved flying. He received his private pilot's license at the old Coddington Airport which is now a bus station. He made his cross-country flight to Victoria, British Columbia the year man first set foot on the moon. Rich belonged to the Civil Air Patrol for many years. He made several search flights for downed aircraft as well as doing maintenance on the planes. Recently he had worked with Lynn Hunt refurbishing the Flying Albatross that is hangered at the Sonoma County Airport.

Rich belonged to the 234th Air Guard out of Hayward. He was scheduled to go to Saudi Arabia in August or September. He didn't have to go, but the unit was put on call.

Rich became a ham in 1981 and worked on many public service events. He worked in the 1986 flood and was stranded in Guerneville for a week helping with the communications and evacuation of victims.

Rich had done a lot for many people, and he will surely be missed. 73's Rich.

- Connie N6FYV

NEW AND RENEWED MEMBERS

SINCE LAST MONTH

K.Souvannaphoxay KC6NDU
1015 Aston Ave #G
Santa Rosa, CA 95404
578-7296

Dave New AA6YX
320 Chadwick Place
Santa Rosa, CA 95401
526-9324

We now have 174 members total.

HAM RADIO "DARK AGES"

I downloaded the following comment from Tad Cook KT7H via Unix mail:

The following was provided by ARRL Executive Vice President Dave Sumner, K1ZZ in a report to ARRL Directors, October 12.

"FCC licensing statistics for the month of September (the last month of their fiscal year) aren't out yet, but based on the 11-month figures and the number of new call signs issued it's apparent that FY 1990 was a record-breaker in amateur licensing. The number of new licensees will exceed 26,000, a substantial increase over the previous year. Compared to FY 1985, when the League filed its Novice Enhancement petition, new licensing activity is running 50% higher. Upgrades will number well over 30,000, also 50% more than five years ago. And of course, the number of amateur licensees is at any all-time high and is likely to break the 500,000 barrier before Christmas.

Despite these figures, we're probably going to hear the 'Amateur Radio is dying' refrain from some quarters. It will be interesting to watch how the gloom-and-doom folks explain them away."

Armond Noble N6WR had a similar comment in November *World Radio*:

You may be reading elsewhere that in 1965, Amateur Radio went into some "dark ages" from which it has never recovered.

Reality seems to suggest something else. Armed with the *World Almanac* and a telephone conversation with Herb Nelson at the *Radio Amateur Callbook*, we find that from 1964 to 1970 there was a 27 percent increase in the Amateur population. Over the next ten years ('70 to '80), there was a 37 percent Amateur increase, while the general population grew but 11 percent.

Over the last 20 years, there has been a 62 percent increase in Amateurs, while the general population has grown 22 percent. So there has been an almost *triple* skew. In 1964 we had 264,810 Amateurs, and today it is well over 467,000. The gain has been over 75 percent.



PFX	COUNTRY	CONTINENT	ITU ZONES	CQ	TIME ZONE	LAT	LONG	ITU PREFIX ALLOCATION	OTHER PREFIXES
4J1	Mal'ys Vyotskij Is	Europe	29	16	+3	61N	29E		
4K2	Franz Josef Land	Europe	75	40	+3	81N	48E		UA1
4S	Sri Lanka	Asia	41	22	+5.5	7N	80E	4P-4S	
4U	ITU Geneva	Europe	28	14	+1	46N	6E		
4U	UN HQ	N America	08	05	-5	41N	74W	4U	
4W*	Yemen Arab Rep	Asia	39	21	+3	12N	35E	4X,4Z	
4X	Israel	Asia	39	20	+2	32N	34E		
5A	Libya	Africa	38	34	+2	33N	13E	5A	
5B	Cyprus	Asia	39	20	+3	35N	33E	C4,H2,P3,5B	
5H	Tanzania	Africa	53	37	+3	7S	39E	5H-5I	
5N	Nigeria	Africa	46	35	+1	6N	3E	5N-5O	
5R	Madagascar	Africa	53	39	+3	19S	48E	5R-5S,6X	
5T	Mauritania	Africa	46	35	-1	18N	16W	5T	
5U	Niger	Africa	46	35	+1	14N	2W	5U	
5V	Togo	Africa	46	35	+0	6N	1E	5V	
5W	Western Samoa	Oceania	62	32	-11	14S	172W	5W	
5X	Uganda	Africa	48	37	+3	0N	33E	5X	
5Z	Kenya	Africa	48	37	+3	2S	37E	5Y-5Z	
6W	Senegal	Africa	46	35	+0	15N	18W	6V-6W	
6Y	Jamaica	N America	11	08	-5	18N	77W	6Y	
70*	Yemen	Asia	39	21	+3	13N	45E	4W,7O	
70*	Kamaran Is	Asia	39	21	+3	13N	45E		
70*	PDR Yemen	Asia	39	21	+3	13N	45E		
7P	Lesotho	Africa	57	38	+2	29S	27E	7P	
7Q	Malawi	Africa	53	37	+2	14S	34E	7Q	
7X	Algeria	Africa	37	33	+0	37N	3E	7R,7T-7Y	
8P	Barbados	N America	11	08	-4	13N	60W	8P	
8Q	Maldives Is	Asia	41	22	+5	4N	73E	8Q	
8R	Guyana	S America	12	09	-3.75	6N	58W	8R	
8T4*	S Arabia/Iraq NZ	Asia	39	21	+3	29N	46E		9K3
8T5*	Kuwait/	Asia	39	21	+3	29N	46E		
9G	Ghana	Africa	46	35	+0	5N	0W	9G	
9H	Malta	Europe	28	15	+1	36N	15E	9H	
9J	Zambia	Africa	53	36	+2	15S	28E	9I-9J	
9K	Kuwait	Asia	39	21	+3	29N	48E	9K	
9L	Sierra Leone	Africa	46	35	+0	9N	13W	9L	
9M2	West Malaysia	Asia	54	28	+7.5	3N	102E	9M,9N	9M4
9M6	East Malaysia	Oceania	54	28	+8	2N	110E	9M,9N	9M8
9N	Nepal	Asia	42	22	+5.5	28N	85E	9N	
9Q	Zaire	Africa	52	36	+1	4S	15E	9O-9T	
9S4*	Saar	Europe	28	14	+1	49N	7E		
9U	Burundi	Africa	52	36	+3	3S	29E	9U	
9U5*	Ruanda-Urundi	Africa	52	36	+3	3S	30E		
9V	Singapore	Asia	54	28	+7.5	1N	104E	S6,9V	
9X	Rwanda	Africa	52	36	+3	2S	30E	9X	
9Y	Trinidad & Tobago	S America	11	09	-4	11N	62W	9Y-9Z	
---*	Blenheim Reef	Africa	41	39	+5	7S	72E		
---*	Geysier Reef	Africa	53	39	+3	12S	46E		

* Antarctica -- ITU Zones: 67,69,70,71,72,73,74. CQ Zones: 12,13,29,30,32,38,39
 ITU Prefix Allocations: AT0,DP0,FT Y,KC4,LU Z,OR4,VK0,VP8,Y8,ZL5,ZS7,ZX0,3Y,4K1,6U1
 ** Asiatic Russia -- ITU Zones: 20,21,22,23,24,25,26,30,31,32,33,34,35,75.
 CQ Zones: 16,17,18,19,23

PFX	COUNTRY	CONTINENT	ITU ZONES	CQ	TIME ZONE	LAT	LONG	ITU PREFIX ALLOCATION	OTHER PREFIXES
YK	Syria	Asia	39	20	+2	34N	36E	YK,6C	
YL	Latvia	Europe	29	15	+3	57N	24E		UQ
YN	Nicaragua	N America	11	07	-6	12N	87W	HT,H6-H7,YN	
YO	Romania	Europe	28	20	+2	45N	26E	YO-YR	
YS	El Salvador	N America	11	07	-6	14N	89W	HU,YS	
YU	Yugoslavia	Europe	28	15	+1	45N	20E	YI-YU,YZ,4N-4O	
YV	Venezuela	S America	12	09	-4	10N	67W	YV-YY,4M	
YV0	Aves Is	N America	11	08	-4	16N	64W		
Z2	Zimbabwe	Africa	53	38	+2	18S	31E	Z2	
ZA	Albania	Europe	28	15	+1	41N	20E	ZA	
ZB	Gibraltar	Europe	37	14	+1	37N	5W		
ZC	Cyprus SBA	Asia	39	20	+2	36N	33E		
ZC5*	Br North Borneo	Oceania	54	28	+8	6N	116E		
ZC6*	Palestine	Asia	39	20	+2	32N	35E		4X1
ZD4*	Gold Coast,	Africa	46	35	+0	5N	0W		
ZD7	Togoland	Africa	46	35	+0	16S	6W		
ZD8	St Helena	Africa	66	36	+0	8S	14W		
ZD9	Ascension Is	Africa	66	36	0	8S	14W		
ZD9	Tristan da Cunha	Africa	66	38	0	37S	12W		
ZD9	& Gough Is	Africa	66	38	0	37S	12W		
ZF	Cayman Is	N America	11	08	-5	19N	81W		
ZK1	No Cook Is	Oceania	62	32	-10.5	10S	161W		
ZK1	So Cook Is	Oceania	63	32	-10.5	22S	158W		
ZK2	Niue	Oceania	62	32	-11	19S	170W		
ZK3	Tokelau Is	Oceania	62	31	-11	9S	171W		
ZL	New Zealand	Oceania	60	32	+12	41S	175E	ZK-ZM	
ZL7	Chatham Is	Oceania	60	32	+12.75	44S	177W		
ZL8	Kermadec Is	Oceania	60	32	+12	29S	178W		
ZL9	Auckland,	Oceania	60	32	+12	51S	166E		
ZP	Paraguay	S America	14	11	-4	26S	57W	ZP	
ZS	So Africa	Africa	57	38	+2	26S	28E	H5,S4,S8,V9,ZR-ZU	
ZS8	Pr Edward & Marion Is	Africa	57	38	+3	47S	38E		
ZS9	Malvis Bay	Africa	57	38	+2	23S	15E		
IA0	SMO Malta	Europe	28	15	+1	42N	13E	IA-	
IM*	Minerva Reef	Oceania	62	32	-12	24S	179W		
IS	Sprattly Is	Asia	50	26	+7	9N	112E	IS-	
3A	Monaco	Europe	27	14	+1	44N	8E	3A	
3B6	Agalega & St Brandon	Africa	53	39	+4	10S	57E		3B7
3B8	Mauritius	Africa	53	39	+4	20S	58E	3B	
3B9	Rodriguez Is	Africa	53	39	+4	20S	63E		
3C	Equatorial Guinea	Africa	47	36	-1	4N	9E	3C	
3C0	Pagalu	Africa	52	36	-1	1S	6E		
3D2	Conway Reef	Oceania	56	32	+12	22S	175E		
3D2	Fiji Is	Oceania	56	32	+12	18S	178E	3Dn-3DZ	
3D2	Rotuma	Oceania	56	32	+12	13S	177E		
3DA	Swaziland	Africa	57	38	+2	26S	31E	3DA-3DM	
3V	Tunisia	Africa	37	33	+1	37N	10E	TS,3V	
3W	Vietnam	Asia	49	26	+7	11N	107E	XV,3W	
3X	Guinea	Africa	46	35	+0	10N	14W	3X	
3Y	Bouvet	Africa	67	38	+0	54S	3E		
3Y	Peter I	An	72	12	-6	69S	91W		3D6

ARRL DXCC COUNTRIES LIST

The current ARRL DXCC country list follows, courtesy of Bill Brelsford K2DI via Usenet. Changes since 3/90 include deletion of Y2, 4W and 7O, addition of the new 7O, and other minor modifications. Much of the information was provided by Ron McConnell, W210L.

Prefixes with a "*" suffix are deleted countries. Time zone is hours from UTC.

PFX	COUNTRY	CONTINENT	ITU ZONES	CQ	TIME ZONE	LAT	LONG	ITU PREFIX ALLOCATION	OTHER PREFIXES
A1	Abu Ail, Jabal at Tair	Asia	39	21	+2	14N	43E	A1-	J2/A
A2	Botswana	Africa	57	38	+2	25S	26E	A2,80	
A3	Tonga	Oceania	62	32	+13	21S	175W	A3	
A4	Oman	Asia	39	21	+4	24N	59E	A4	
A5	Bhutan	Asia	41	22	+5.5	27N	90E	A5	
A6	United Arab Emirates	Asia	39	21	+4	24N	54E	A6	
A7	Qatar	Asia	39	21	+4	25N	52E	A7	
A9	Bahrain	Asia	39	21	+4	26N	51E	A9	
AC3*	Sikkim	Asia	41	22	+5.5	27N	89E		
AC4*	Tibet	Asia	41	23	+6	30N	92E		
AP	Pakistan	Asia	41	21	+5	34N	73E	AP-AS,6P-6S	
BV	Taiwan	Asia	44	24	+8	25N	122E		
BY	China	Asia	33,42,23,24	+8	40N	116E	BA-BZ,XS,3H-3U		
C2	Nauru	Oceania	65	31	+11.5	0S	167E	C2	
C3	Andorra	Europe	27	14	+1	43N	2E	C3	
C5	The Gambia	Africa	46	35	+0	13N	17W	C5	
C6	Bahamas	N America	11	08	-5	25N	77W	C6	
C9	Mozambique	Africa	53	37	+2	26S	33E	C8-C9	
C9*	Manchuria	Asia	33	24	+8.5	46N	127E		
CE	Chile	S America	14,16	12	-4	33S	71W	CA-CE,XQ-XR,3G	
CE9	Antarctica	Antarctic	*	*	+0	90S	0W	*	
CE0A	Easter Is	S America	63	12	-7	27S	109W		
CE0X	San Felix	S America	14	12	-5	26S	80W		
CE0Z	Juan Fernandez	S America	14	12	-4	34S	79W		
CN	Morocco	Africa	37	33	+0	34N	7W	CN,5C-5G	
CN2*	Tangier	Africa	37	33	+0	36N	8W		
CO	Cuba	N America	11	08	-5	23N	82W	CL,CM,CO,T4	
CP	Bolivia	S America	12,14	10	-4	17S	68W	CP	
CR8*	Damao, Diu	Asia	41	22	+5.5	21N	71E		
CR8*	Goa	Asia	41	22	+5.5	16N	74E		
CR8*	Portuguese Timor								

