

FEB. 2, 1989

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197

From the Editor...

Welcome to Spring 1989!! This spring is bound to be one of the best on record. ARRL CW contest was a blast in several ways. The boys at N6RO broke 4M as a two transmitter multi. Yours truly was pounding keys at K6ZM as WR6R and having a great time operating and fixing. This was the first big contest for my new amplifier named after a famous Russian tsar Ivan the Terrible. Amplifier performed well until 11.30 Pm Friday night when a filter capacitor (38mF) decided to short out. For a moment we thought a thunder went off in the shack. 4800 volts and 1 amp (maybe more) has a lot of punch. A decision was made to fix the amp in the middle of a contest. Luckily I had two more capacitors. By 2am Saturday morning amp was back on line ready to do battle on 40 and 80 meters. But Murphy decided to visit us one more time before the 'test was over. Nice, heavy duty relay decided to get lose and make its own contacts. One hour later and couple hundred of my choice words directed to the now defunct manufacturer of this relay, we were back on the bands. We had several standby amplifiers while repairs took place so that we were not silent at any time. 1400 watts or 10 makes a big difference. We were no longer pushed around by the East Coast boys!!!! The days of MLA 2500 and SB 220 are gone for good as the competition is getting tougher and stronger every year.

In other news: Club Wants You. Please do not forget that April meeting is an election night. If you are politically ambitious and shrewd there is a future for you as a Club Officer. Able members are encouraged to submit nominations.
de KI6EZ Alex

February 1989 NA CW Sprint...

Call	NCCC QSO's	Mults	Score
N6IG	300	44	13200
N7NG	278	40	11120
W6RGG	255	39	9945
AJ6V	259	37	9583
W6OAT	245	37	9065
K6XC	213	41	8733
N1EE	235	37	8695
K6LRN	199	35	6965
N6BT	180	36	6480
WA6AUE	195	32	6240

Byes

WA6VEF	12915	2-88
N6RO	11046	9-88
N6XI	11040	2-88

The scores add up to 90026. That would have been 5th place in February 1988, and 3rd place in the club competition if only included teams that have a requirement of club membership. That is preaty darn good given the numbers you see on three people that have byes this ti me. I would like to congradulate all on the job well done. I will probably start organizing the September teams in mid July.

September CW Sprint

Date - Saturday, 9 1989

Time - 5pm to 9pm local.

73, Scott Lieberman
3200 Payne Ave., #714
San Jose, CA 95117



NCCC
44 Toyon Terrace
Danville, CA 94526

FIRST CLASS

W6OAT Exp: 89
RUSTY EPPS
651 HANDLEY TRAIL
REDWOOD CITY, CA 94062

RESULTS

OCTOBER 1-2, 1988



What A Difference a Year Makes

Incredible conditions!
Great activity!
Lots of fun!

These are just a few of the ways that participants described the 1988 running of the California QSO Party (CQP), sponsored each year by the Northern California Contest Club (NCCC). The mediocre propagation which plagued the 1987 CQP, as well as the 1984, 1985, and 1986 Parties, gave way to some super band conditions in 1988. With the solar flux hovering near the 200-mark, the A at 5 and the K at zero, and low geomagnetic activity, it's no wonder that CQP entrants were able to form a 125 KC wide wall of RF on 10 sideband during both days of the contest!

Not only was propagation superb--so was activity. A record 364 logs were received from 56 of 58 California counties, 46 states, 7 Canadian sections, and 21 DXCC countries. It was another year of record-setting performances, as no less than 42 entrants set new single-op scoring marks--13 in CA and 26 out of state.

Many of the participants in the Cal QSO Party have concluded that the CQP is much more than just a contest. For most, it's plain and simply FUN! Unlike most other radiosporting events, in the CQP you don't need big antennas and an amplifier to make a good score. The Party provides out-of-state ops with the opportunity to work lots and lots of W6s, and to contact most or all of the counties they need for the NCCC-sponsored "Worked All California Counties" Award. And, for stations in the Golden State, it gives them the chance to "be DX," to be the "hunted" rather than the "hunters."

Long Live Ten Meters

Without a doubt, the story of the 1988 CQP was ten meters, the band on which just about every active participant made most of his/her QSOs. Ten was a "bottomless pit" of contest activity, especially so with all of the Novices and Technicians roaming the SSB portion of the band. In fact, those who tuned 15 and 20 during the day looking for stations to work may have thought that the CQP had been cancelled!

A few very interesting notes about the '88 Party--first, despite the great conditions, scores from California remained about the same as they were in 1987. In fact, the average California Top Ten score rose just a bit from 216K in '87 to 218.4K in 1988. One reason for this may be that 15, 20, and 40 meters went largely ignored

1988 CALIFORNIA QSO PARTY

until ten meter rates dwindled. As such, unlike the past few years where CQP activity shifted smoothly from band to band, CA entrants were not as likely to QSY and work the same station on four or five different bands and modes. In general, as it turned out, most California stations benefitted only a little bit from the fantastic propagation!

Outside CA it was a similar situation. The average Top Ten score actually declined from 82.8K in 1987 to 76.8K in 1988. However, when we rank the scores for the '88 Party, we find that 60 stations broke the 20 kilopoint mark, while only 50 did so in 1987. It seems that the better propagation made the medium and little gun stations more competitive, while providing the big guns with no extra advantage!

California Single-op Competition

Leading the pack of California single-ops this year was Gary Caldwell (gee, that's me!), WA6VEF, operating from station N6BT in Santa Clara County. Gary's 326.8K final score represents the biggest tally ever made from California, eclipsing the previous 293K record set back in 1981 by N6TR. The secret to his success was, you guessed it, 10 meters, where his 1,587 QSO total was 330 contacts higher than any other entrant in the contest!

Ahead of the competition by 50 QSOs at 2300Z on Saturday, Gary chose to stay on 10 SSB until the band closed at 0215Z, disregarding activity on the other bands until 10 was completely dead. During this period he was able to maintain rates exceeding 110 QSOs per hour. And, by 0500Z, after devoting time to 15, 20, and 40 meters, he had built up a 300 QSO lead! Ultimately, Gary's decision to linger late on 10 meters, while most of the other serious CQP participants had QSYed to lower frequencies, won the contest for him.

Capturing second place was Kurt Address, NI6W, guest operating from N6ND's QTH in San Diego County. Certainly no stranger to past CQP Top Ten boxes, Kurt compiled a personal best 278.8K score as well as his highest-ever finish in a CQP. And, taking third place was Duane Ausherman, W6REC, with a fine 263K and a new Modoc County record.

Congratulations are in order to these CA single ops who set new county scoring records: K6HTM, K6RK, K6AAW, W6NAT, KI6CG, W6JTI, W6REC, W6TKV, KG6GF, WA6VEF (at N6BT), WB6MBF, AA6DX, WJ6Q/M (yes, that's right--MOBILE!), and W6BSY. A special mention should also be made of the efforts of

N6NF, W6JTI, N6GC (at W6AB), and W6UQF, who all managed to position themselves in the California Top Twenty while running 200 watts or less.

The California Multi-ops

Multi-single and multi-multi efforts enjoyed a resurgence in the 1988 CQP. No less than 15 CA stations submitted scores in these two categories, compared with nine entries in the 1987 Party. The top multi-single spot goes to the Colusa County expedition ably manned by NB6G, N6IG, and W6GO. Dave, Jim, and Jay set up a modest three element tri-bander and wires atop the football grandstand at the Colusa Co. fairgrounds, and managed to break the CA multi-single record with a fantastic 275.5 kilopoint score! Finishing in second were WX6M and K6HIH at 256K, while KA6W, operated by KI6EZ and K4UVT, placed third with 207K.

First place among the multi-multis belongs to Jim, KS6H, and Bob, N6ZB, who turned in a 161K score operating portable from Merced County.

Out-of-State Participation

The Cal QSO Party traditionally attracts fierce competition from outside the Golden State--and the 1988 Party was certainly no exception. Moving from fourth place in 1987

to a first place finish in 1988 was Bill McClellan, KV0I. Logging an amazing 1,039 QSOs and all of California's 58 counties, Bill's 132.1K from the state of Nebraska established a new out-of-state scoring record. His victory underscores the fact that one should NEVER give up until the contest is over, as he began Sunday morning of the CQP in second place, trailing by 110 QSOs! Taking advantage of the great 10 meter conditions, Bill was able to work 432 contacts on Sunday, almost all of them on 10 sideband. He finished the contest 60 Qs ahead, with a staggering total of 700 ten meter QSOs!

Capturing the number two spot for the second consecutive year was Bob Brockman, WX4G. Bob's 125K effort set a new record for the state of Georgia, and is the biggest CQP score ever made from east of the Mississippi. And, rounding out the Top Three was Scott Zucker, WA0AVL, who squeaked past N6TR/7 to take third place honors with a 73.9K finish.

Special mention should be made of the many W and VE ops who established new out-of-state scoring marks. They are: WA4VEK, KL7AF, W0IZV, NC1E, K3HBP, WX4G, KE9I, N0FMR, AB4JP, NB1B, KB6LO/0, KV0I, W2GD, AI9X, NW2J, AA4NC, N8BJQ, W5TZN, KD0EE, WA1JVV, KD8SE, K7MM, VE3BQL, VE5FN, VE6DZ, and VE8CM. As well, congratulations are in order to WA1JVV and NC1E who both cracked the Top Ten from New England. It is usually very difficult for stations from the first call area to do this--and it's not surprising that their scores are the biggest ever made from W1 land.

Another notable achievement was that of Will, AA4NC, who finished fifth overall running just 100 watts output! The most competitive state in '88 was Colorado, where three stations (W0IZV, N0FFZ, and AC0S) all broke the existing single-op record.

Special Awards

The Top Twenty--
Winners of a personalized bottle of California wine direct from the cellars of the Northern California Contest Club

California: WA6VEF, NI6W, W6REC, NE6I, AA6DX, N1EE, K6AAW, KG6GF, K6RK, N6NF, W6JTI, WA6FGV, W6BSY, N6GC, W6UQF, KI6CG, N6PE, W6TKF, N6HC, and W6TKV.

Outside California: KV0I, WX4G, WA0AVL, N6TR, AA4NC, KB9S, WA1JVV, VE7DLM, NC1E, N8BJQ, NB1B, W3HDH, W2GD, W5TZN, NW2J, K4MF, N6CQ/3, W5ASP, KE9I, and N2AZS.

Chairman's Award: CA single-op with the most CW QSOs--Charles G. Oakes, W6UQF.

Out-of-state single-op with the most CW QSOs (sponsored by K4TKM)--Bill Lumntzer, N6CQ/3.

CA mobile single-op or team with the most QSOs (sponsored by the Redwood Empire DX Assn.)--Alan Brubaker, K6XO.

Low power champions (200 watts or less)(sponsored by K4TKM)
--California: Thomas E. Gehman, N6NF.
--Out of state: Will Roberts, AA4NC.

High scoring Novice/Technician (sponsored by KA6ING)
--California: Bill Philpott, KB6NJV.
--Out of state: Paul Rahfield, KB5ECK.

Top Club in California (sponsored by the Palo Alto (CA) ARA)--Redwood Empire DX Assn. (3 entries)--
105,474 pts.

Top Ten Band Breakdowns

Out-of-State		10S	10C	15S	15C	20S	20C	40S	40C	75S	80C	160S	160C
Call	Score												
KV0I	132,124	645	55	72	43	77	29	38	16	7	0	0	0
WX4G	125,106	535	61	90	65	108	42	42	12	33	15	0	0
WA0AVL	73,976	302	38	35	38	133	28	18	4	0	7	0	0
N6TR	73,617	26	12	45	50	202	38	95	47	45	13	16	17
AA4NC	68,264	200	46	130	73	22	17	1	35	0	0	0	0
KB9S	65,395	191	39	80	41	58	34	24	28	15	9	0	0
WA1JVV	63,918	107	68	73	71	40	58	5	47	0	8	0	0
VE7DLM	61,656	35	11	167	41	64	33	60	23	32	15	2	4
NC1E	52,832	130	35	82	56	44	49	0	14	0	14	0	0
N8BJQ	51,993	184	56	42	46	52	28	1	11	0	0	0	0

California

Call	Score	160S	160C	75S	80C	40S	40C	20S	20C	15S	15C	10S	10C	VHF
N6BT	326,830	8	13	54	56	76	92	205	124	229	100	1507	80	41
N6ND	278,864	12	19	28	28	88	109	221	61	427	118	1043	51	6
W6REC	263,088	25	15	47	74	13	68	169	129	125	126	1229	28	0
NE6I	243,426	0	4	57	43	58	83	189	155	489	155	531	112	2
AA6DX	216,514	6	15	89	27	41	50	286	35	207	119	693	117	0
W6BIP	186,447	0	0	58	45	85	71	97	17	164	101	712	99	20
K6AAW	171,854	0	0	64	17	33	0	134	69	227	123	638	48	0
KG6GF	169,534	3	3	71	37	79	49	200	33	210	90	396	123	0
K6RK	164,604	3	7	64	21	22	26	190	140	104	160	409	64	0
N6NF	163,212	0	3	38	24	24	73	16	79	245	82	493	133	0

Top Five CA Multi-Single

Call	Score	160S	160C	75S	80C	40S	40C	20S	20C	15S	15C	10S	10C	VHF
NB6G	275,500	20	16	59	23	35	49	257	91	295	83	1202	76	0
WX6M	256,418	0	0	29	24	73	81	369	130	193	84	954	76	0
KA6W	207,234	0	0	19	0	30	45	272	0	564	0	834	0	0
N6EE	179,220	0	0	50	51	41	63	25	84	91	73	744	125	0
KB6RXP	168,606	0	0	6	0	75	0	263	0	293	8	803	1	0

DX Competition

With the great conditions in the 1988 CQP, many California entrants commented that this year's Party seemed to be as much a DX contest as a stateside event. As it turned out, they were right, as almost 10% of the logs received after this year's contest came from outside the USA and Canada!

First place in Europe goes to Gintas, UP2BKW, who operated station UP1BWW to a 34K finish and a new European record. As an indicator of just how well he did, Gintas fell only 50 QSOs short of making the out-of-state Top Twenty! Right behind at 28K was LA8PF, while DL4RX placed third with 23K. Other continental leaders included Sakae, JA1MZM, in Asia; Wien, YB2CTW, in Oceania; and Jim, PY5ZBA, in South America. Sakae, Wien, and Jim all set new continental scoring records during the weekend.

The Novices and Technicians

One of the best things about a wide-open ten meter band is that it gives Novices and Technicians a chance to really try their hand at radio contesting.

The top spot among the CA Novice/Technicians goes to 15-year-old Bill Philpott, KB6NJV, operating from Amador County, who made 412 QSOs and 44 kilopoints in his first major attempt at contesting! Following closely behind Bill was 11-year-old Kari Reiring, KB6EEK. Kari is the daughter of Chuck, KD6FW, a CQP regular, who unfortunately had to work during the weekend and thus spent little time in the Party. Kari took over, and her 35K score not only beat Dad, but also netted her a second place finish!

Outside California, Paul Rahfield, KB5ECK, took top honors with 21K, a score just 2,000 points shy of a new Mississippi state record. And, in second place with 16K was Linda Mayenschein, KA9CHM. Linda, by the way, also placed in the Top Ten in the 1988 Novice Roundup.

The CA County Expeditions

Once again we take our hats off to the dedicated folks who pack the rig and antennas into the car and travel far and wide to activate those rare California counties. Without a doubt, the CQP would be a lot less fun without the efforts of these 37 mobile and portable expeditioners. They are:

The mobile specialists--Alan Brubaker, K6XO, operating from six rare counties in the central, eastern part of the state. His 325 QSO total is the most by a mobile single-op or team . . . N6NKN, who journeyed from the very top to the very bottom of the state, operating from 14 different CA counties! . . . WJ6Q, who set a new scoring mark for Trinity Co. This is the first time in many years that a mobile station has set a new county record . . . K6YK in Tuolumne, Stanislaus, San Joaquin, and Calaveras . . . WA0YQM, who visited four central CA counties . . . and K6MO and N6KG, who braved rough weather and sea sickness while operating maritime mobile from the middle of San Francisco Bay . . .

and the CA County Expeditions--W5VGF and N6PME in very, very rare Imperial County . . . the K6YA multi-op group, operating from atop Mt. Tamalpais in Marin County, who camped out, barbequed, and played ham radio . . . N6JM in Sierra . . . AA6T, NS6G, and N6JWA operating multi-single from Tehama . . . K6AAW, who bested the old Colusa Co. record. This is the fifth time in the last six years that Larry has set a new scoring record, and each time it's been from a different CA county! . . . KI6CG in Fresno . . . W6TVP in Trinity . . . N6EE and AD6E in Tuolumne . . .

and N6AU, who turned in separate portable efforts from Sierra, El Dorado, Alpine, and Nevada . . . N6LL in Kern . . . NB6G, N6IG, and W6GO in Colusa . . . W6BSY, who drove several hundred miles from the San Francisco Bay Area to put on an existing station in Yuba County . . . KS6H and N6ZB in Merced . . . N6ESV in Glenn, Yolo, and Sutter . . . K6XS in Kings . . . and K6TMB and W6SZN in Placer County.

The Folks Who Make It Happen

The continuing success of the California QSO Party is certainly no accident--it is the direct result of the efforts of a dedicated and hard working team.

The Northern California Contest Club extends its appreciation to these individuals for their help with the '88 CQP: WW6F, K6LRN, WC6I, KI6CG, W6BSY, W6REC, and NC7K, who all served to co-ordinate CQP activity in the NCCC; N1EE, KI6EZ, KA6ING, W6BSY, and WA6AHF for helping with publicity; N6EK for his usual first-rate job on the certificates and wine bottle labels; W6OSP for procuring the wine awards; W6SZN for maintaining the all-time CQP records list; K6XO and VE7NKI for assisting with the contest results; W7MAP for helping with the photocopying, as well as serving as interim NCCC newsletter editor for the two issues preceding the CQP; and N6BT, WZ6Z, and AI6V for their generous financial support of the California QSO Party.

Thanks are also in order to K4TKM/6, KA6ING, the Palo Alto Amateur Radio Association, and the Redwood Empire DX Association for sponsoring Cal QSO Party awards.

Ten Meters is Bound to be Wide Open...

...the first full weekend in October of 1989, so be sure to mark your contest calendar for the next running of the California QSO Party. It's slated for October 7th and 8th, 1989, with the usual starting time of 1600Z on the 7th.

By the way, it's ok to tell all of your ham friends about this Party. They certainly don't need an invitation to "attend," and we don't mind crashers one bit! See you in the contest!

73,

Gary

Gary Caldwell WA6VEF
1988 CQP Chairman

Soapbox

Out-of-state.....

Great contest! Last year we got 1' of snow during CQP--power and all ants came down with the trees. This year no snow and XYL wasn't home on Sat.! (NW2J) . . . Had a great time--wasn't even planning on entering--but the excellent conditions and heavy participation by all those other stations "pulled" me into it! (KB5ECK) . . . It is amazing the difference in activity patterns in this contest compared to two years ago. This time there just wasn't anyone on 40 meters during the day!! (N6TR/7) . . . Enjoyed this contest very much! Look forward to meeting everybody next year! (UP2BKW, op of UP1BWW) . . .

Do you Californiaans know that there is spectrum below 20M? Low bands weren't too good, but I expected to hear SOMEONE on 40, 80, or 160! HI! (WA5VBE) . . . I would like to commend the W6 hams for their courtesy and good operating practices. It's also fun to be considered as a rare multiplier--had a few pile ups going--good practice for the fall DX contests. (VE5FN) . . . Number of DIFFERENT California stations worked this year was 145--an increase of 20 over last year. (W3HHDH) . . . Always nice meeting the ops who recognize my call (N6HC, W6BIP, W6OAT, N6BT, etc.) and say "Tnx for Dele" even before I give the exchange--HI! (K3HBP) . . .

Got a 60/hr rate on Sunday from 1840-1940 by CQing into CA on 10M (NB1B) . . . What a great QSO Party--couldn't be any better. Great CA operators. 10 meters was fabulous. Fone only this year--CW only in '89 (KV4F) . . . A fitting end to 15 years of hamming from Connecticut--I turned 40 during the CQP weekend, and move to Florida in two weeks. Will take down the vertical now that the "California Sweepstakes" is over. (KITN) . . . I wish my life was as organized as the CA QSO Party! (K1CLN) . . .

And from California.....

Wonder what NCCC's connections are to be able to have the solar flux peak on CQP weekend?(N6LL) . . . I lost my voice Saturday so couldn't work 40M that evening. Really enjoyed all the contacts I was able to make. (KA6CZS) . . . Europeans were louder than the East Coast on 10 and 15, quite a thrill for a fairly new ham who has not been through a complete sunspot cycle. (WU6I) . . . I think this was one of the best CQPs in a good many years. (W6NAT) . . . Murphy struck twice--SB 220 amp got hot and suffered a "meltdown." Fan didn't start and plastic fan drooped! Switched over to Drake L-7 amp. About 8 pm Sat. nite--big fireworks in power supply. Finally pulled old 30LI out of its hiding place and finished the contest. (K6RK) . . .

Happiness is having VE8CM call you early in the contest! (W6UQP) . . . Darrel, KB6RXP, made a little over 80% of the contacts (in the KB6RXP multi-single effort). Darrel is 11 years old and now has his General license. He really liked the Cal QSO Party, and his stated goal is to set a new Orange County record next year! (W6TMD) . . . I had a blast! Thanks for sponsoring this great CA SS, and thanks for the wine in '86 and '87! (W6JTI) . . . When I turned on the rig Sunday morning there was N6EE telling his contact that he didn't know how to spell Tuolumne because he was just visiting. I was able to get through to him as his next contact, giving him my number and T-U-O-L-U-M-N-E County--and we both had a good laugh. (KI6PG) . . .

Last year I only had 225 QSOs, so decided to really go at it this year. I had a ball due to terrific band conditions, and managed to work all states in just 6 hours 40 minutes, a new personal best. (W6TKV) . . . Worked all over the world with a 40 mtr dipole up 20 feet--barefoot! (N6TV) . . . Many thanks to Tom, N6BT, for cleaning the bottle. (WA6VEP) . . . SK

Final Scores

Call, score, total QSOs, total CW QSOs (in parentheses), multiplier. An * = new single-op contest record; (M/S) = multi-single; (CE) = single-op CA county expedition; (MCE) = multi-op CA county expedition; (N/T) = Novice/Technician; /M = mobile.

California

Alameda				
N6DA	91,200	627	(346)	57
W6RGG	39,330	285	(285)	46
K6CSL	15,660	176	(83)	36
K6ARE	1,620	30	(30)	18
WA0YQM/M	16	4	(0)	2
Alpine				
K6XO/M	11,016	111	(84)	36
N6AU/6 (CE)	5,249	66	(49)	29
N6NKN/M	98	7	(0)	7
Amador				
K6BPB	62,328	424	(424)	49
KB6NJV (N/T)	44,013	412	(39)	51
N6NKN/M	84	7	(0)	6
Butte				
*K6HTM	59,280	520	(0)	57
Calaveras				
*K6RK	164,604	1210	(418)	58
K6YK/M	198	11	(0)	9

Colusa

*K6AAW (CE)	171,854	1353	(257)	58
NB6G (+N6IG, W6GO) (MCE)	275,500	2206	(338)	58

Contra Costa

AK6T	44,414	354	(130)	53
K6ZM (+N6OP) (M/S)	47,682	404	(75)	54

Contra Costa/Marin/Solano/Sonoma				
K6MO/MM (+N6KG)	28,938	260	(222)	39

Del Norte

*W6NAT	62,358	547	(0)	57
K6HY	57,996	451	(172)	54
NK6Z	1,860	62	(0)	15

El Dorado

WV6M	54,432	463	(82)	54
WA0YQM/M	918	27	(0)	17
N6NKN/M	72	6	(0)	6
N6AU/6 (CE)	42	5	(4)	3

Fresno

*KI6CG (CE)	137,692	1187	(0)	58
WB6ITM	28,752	278	(43)	48

Glenn

N6ESV (CE)	2,115	46	(0)	23
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Humboldt

*W6JTI	162,052	1128	(538)	58
KB6FIW	26,312	253	(0)	52

Imperial

W5VGF/6 (+N6PME) (MCE)	57,273	418	(287)	51
N6NKN/M	112	8	(0)	7

Kern

WW6O	29,574	279	(0)	53
N6LL (CE)	24,480	255	(0)	48
KA6CZS	18,500	185	(0)	50

Kings

K6XS (CE)	18,573	163	(127)	41
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Lake

KR6G	96,512	832	(0)	58
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Lassen

K6JKC	72,800	604	(92)	56
N6NKN/M	108	9	(0)	6

Los Angeles

NE6I	243,426	1841	(515)	58
N6HC	118,262	859	(321)	58
WB6VVS	20,026	180	(167)	38
KI6VC	13,674	152	(138)	43

Madera

KB6EEK (N/T)	35,518	413	(0)	43
KD6FW	8,610	105	(0)	41

Marin

K6LRN	84,274	629	(195)	58
K6YA (K6MA, N6IIU, WA6ROM, WA6LIJ, WA6TKV, N6GAL, WB5VUL ops) (MCE)	59,292	487	(124)	54

Mariposa					
K6XO/M	4,788	69	(33)	28	
Merced					
WU6I	100,166	751	(225)	58	
K6XO/M	162	9	(0)	9	
KS6H (+N6ZB) (MCE)	161,646	1177	(433)	58	
Modoc					
*W6REC	263,088	2048	(440)	58	
N6NKN/M	98	7	(0)	7	
Mono					
K6XO/M	5,952	80	(32)	31	
N6NKN/M	264	12	(0)	11	
Monterey					
WA6QDR	99,760	860	(0)	58	
Napa					
W6FSJ	76,095	542	(251)	57	
Nevada					
A16V (WA6AUE op)	107,103	808	(263)	57	
N6NKN/M	84	7	(0)	6	
N6AU/6 (CE)	21	3	(1)	3	
Orange					
N6PE	132,012	934	(448)	57	
N4ARO/6	67,392	509	(230)	54	
WA6FIT	40,278	411	(0)	49	
W6SX	20,582	175	(152)	41	
KB6RXF (+N6CU) (M/S)	168,606	1449	(9)	58	
Placer					
N4KS/6	37,812	274	(274)	46	
W6RPF	15,207	137	(137)	37	
N6NKN/M	24	4	(0)	3	
K6TMB (+W6SZN) (MCE)	149,698	1158	(265)	58	
Plumas					
KF7AM	27,072	192	(192)	47	
N6NKN/M	72	6	(0)	6	
Riverside					
*W6TKV	116,464	1004	(0)	58	
Sacramento					
KOOL/6	52,773	359	(359)	49	
N6JV	51,474	376	(367)	46	
W6NKR	10,791	109	(109)	33	
K6DR	3,555	79	(79)	15	
N6ESV	176	11	(0)	8	
WA0YQM/M	40	5	(0)	5	
San Benito					
*KG6GF	169,534	1294	(335)	58	
San Bernardino					
W6HAL	17,082	171	(96)	39	
KJ6JO	11,316	138	(0)	41	
San Diego					
N6ND (NI6W op)	278,864	2211	(386)	58	
W6UQF	149,350	970	(635)	58	
KI6ZH	53,418	427	(67)	58	
WA6UFY	34,839	290	(131)	49	
W6GG	24,087	217	(217)	37	
AA6EE	22,714	194	(166)	41	
WA6YOO	5,800	100	(0)	29	
San Francisco					
W6BIP (N1EE op)	186,447	1469	(333)	57	
K6ILM	45,845	325	(215)	53	
K4TKM/6	4,896	48	(48)	34	
San Joaquin					
N6KZW	58,352	521	(0)	56	
N6NMM	7,437	100	(1)	37	
K6YK/M	1,155	27	(1)	21	
WA0YQM/M	50	5	(0)	5	

San Luis Obispo					
WB6HJW (+WA6MSN) (M/S)	124,178	1005	(131)	58	
San Mateo					
N6NF	163,212	1210	(394)	58	
W6OAT	102,258	749	(296)	57	
K6KLY	87,464	754	(0)	58	
KA6ING (N/T)	11,433	154	(1)	37	
W6KZJ	2,457	63	(63)	13	
W6ISQ	1,290	33	(20)	15	
Santa Barbara					
WA6FGV	161,880	1381	(78)	57	
W6AB (N6GC op)	161,240	1251	(278)	58	
AC6T	46,206	302	(302)	51	
Santa Clara					
*N6BT (WA6VEF op)	326,830	2585	(465)	58	
WC6I	80,666	508	(506)	53	
N6TV	56,567	375	(319)	53	
KB6GV	48,785	443	(1)	55	
K6YT	28,905	235	(235)	41	
W6PRI	17,605	170	(163)	35	
KB6MTT (N/T)	14,212	183	(8)	38	
AJ6V	12,960	153	(18)	40	
K6XO	12,580	138	(64)	37	
WA6HRK	1,188	27	(0)	22	
AA6BS (+N6RCE, KD6WG) (M/S)	31,344	287	(79)	48	
Santa Cruz					
NS6V	83,105	623	(265)	55	
KJ6AP	43,160	415	(0)	52	
KA6W (KI6EZ, K4UVT ops) (M/S)	207,234	1764	(45)	58	
Shasta					
W6BJH	33,660	255	(255)	44	
WB6SRQ	7,416	103	(0)	36	
N6NKN/M	198	11	(0)	9	
Sierra					
N6JM (CE)	37,600	310	(180)	47	
N6AU/6 (CE)	2,090	38	(19)	22	
N6NKN/M	1,364	31	(0)	22	
Siskiyou					
*WB6MBF	63,580	501	(154)	55	
KI6NB	22,160	186	(182)	40	
N6NKN/M	126	9	(0)	7	
Solano					
KJ6FY	25,041	245	(1)	51	
WX6M (+K6HIH) (M/S)	256,418	2013	(395)	58	
Sonoma					
WW6F	47,700	450	(0)	53	
WW6D	42,728	318	(236)	49	
WABLLY/6	18,800	200	(0)	47	
KE6WL	2,400	46	(28)	20	
WB6EGE (N6QC, WB6WPO, KI6LP ops) (M/S)	4,224	69	(54)	22	
Stanislaus					
K6YK/M	270	15	(0)	9	
K6XO/M	144	9	(0)	8	
Sutter					
N6ESV (CE)	308	14	(0)	11	
Tehama					
*AA6DX	216,514	1685	(363)	58	
WB6KOE	80	8	(0)	5	
AA6T (+NS6G, N6JWA) (MCE)	81,730	708	(70)	55	
Trinity					
*WJ6Q/M	30,050	256	(89)	50	
W6TVP (CE)	19,992	196	(196)	34	

Tulare					
KD6WW	87,808	708	(152)	56	
W6IFC	40,050	267	(267)	50	
Tuolumne					
KI6PG	9,248	136	(0)	34	
K6XO/M	2,256	47	(0)	24	
K6YK/M	374	13	(8)	11	
N6EE (+AD6E) (MCE)	179,220	1347	(396)	58	
Ventura					
W6TKF	119,073	897	(295)	57	
N6MA	60,768	422	(422)	48	
K6MP	30,384	229	(177)	48	
N6VR	3,250	50	(25)	26	
Yolo					
N6ESV (CE)	70	7	(0)	5	
Yuba					
*W6BSY	161,762	1318	(153)	58	
Out of State					
Alabama					
*WA4VEK	33,100	331	(0)	50	
WA4NAT	5,841	71	(35)	33	
Alaska					
*KL7AF	21,574	176	(117)	46	
NL7D	8,436	111	(0)	38	
Arizona					
AK7J	988	25	(2)	19	
Arkansas					
KY5M	14,444	157	(0)	46	
WA5VBE	12,470	145	(0)	43	
Colorado					
*W0IZV	34,200	259	(166)	50	
N0PFZ	31,200	231	(162)	50	
AC0S	27,232	221	(150)	46	
KA1MPF/0	6,320	73	(12)	40	
K0GAS (+KJ0G) (M/S)	37,632	307	(154)	49	
Connecticut					
*NC1E	52,832	424	(168)	52	
WE6G	18,753	189	(21)	47	
WA1PCN	12,255	116	(53)	43	
K1TN	10,959	105	(71)	39	
Delaware					
*K3HBP	28,150	228	(107)	50	
Florida					
K4MF	46,300	358	(210)	50	
K0AJ	31,450	260	(109)	50	
N4OKD	13,325	115	(95)	41	
KN4Y	12,870	110	(110)	39	
WA5DTK	12,426	139	(49)	38	
WK4F	3,600	60	(0)	30	
WA4HXZ	1,872	39	(0)	24	
KC4GED	32	4	(0)	4	
Georgia					
*WX4G	125,106	981	(195)	58	
KB4GID	28,688	230	(192)	44	
AB4HR	14,014	143	(0)	49	
KA7LKV	8,604	87	(65)	36	
AB4HQ	7,918	107	(0)	37	
K4BAI	1,575	25	(25)	21	
Idaho					
W07Y	26,010	224	(130)	45	
W7RH	14,240	137	(82)	40	
Illinois					
WA0AVL	73,976	603	(115)	56	
WD9AFL	36,015	285	(165)	49	
KD9OT	21,804	237	(0)	46	
N9JF	14,112	139	(58)	42	
NJ9Q	12,892	138	(17)	44	

WA9AXL	10,640	115	(36)	40
WA9MRU	6,142	71	(24)	37
K9KKX/M	4,488	66	(0)	34
K9HRC	3,528	49	(49)	24
Indiana				
*KE9I	42,612	371	(62)	53
KBOC	19,686	193	(0)	51
NU9C	1,281	30	(1)	21
Iowa				
KCOGM	15,648	163	(0)	48
KOSRL	2,730	49	(7)	26
WOJTC	2,475	33	(33)	25
Kansas				
*NOFMR	34,416	287	(163)	48
NWOF	12,978	129	(51)	42
Kentucky				
*AB4JP	31,100	268	(74)	51
WA4EBN	15,750	125	(125)	42
K2UPD	10,530	100	(70)	39
N4OHV	2,208	46	(0)	24
Louisiana				
NOSW	11,328	118	(118)	32
Maine				
KA1ZX	944	28	(3)	16
KA1EAP	180	10	(0)	9
Maryland/DC				
KD3IW	480	16	(0)	15
Massachusetts				
*NB1B	50,284	415	(137)	52
K1CLN	12,052	119	(24)	46
Michigan				
W8WVU	17,802	138	(138)	43
K8CV	15,372	142	(82)	42
W8YL	1,170	26	(26)	15
Minnesota				
NOHJZ	34,074	308	(15)	54
KOMPH	8,855	105	(43)	35
WONGB	6,300	70	(70)	30
WFOV	3,000	50	(0)	30
Mississippi				
KB5ECK (N/T)	21,472	244	(0)	44
N5KGY	17,730	197	(0)	45
Missouri				
*KB6LO/0	24,274	229	(0)	53
WBOZSS	15,372	122	(122)	42
NOIZZ	6,232	78	(0)	38
WA00TV	1,020	20	(20)	17
Montana				
N7HFU	8,056	106	(0)	38
Nebraska				
*KV0I	132,124	1039	(200)	58
AKOG	31,875	263	(99)	51
NOGMR	14,432	164	(0)	44
WOOLL	3,136	49	(0)	32
WOZYJ	1,440	30	(0)	24
Nevada				
AE7K	9,953	90	(89)	37
WA7UTM	6,916	91	(0)	38
New Hampshire				
NR1M	20,944	204	(68)	44
New Jersey				
*W2GD	49,452	372	(207)	52
W2KHT	22,088	200	(102)	44
W2NZH	18,840	157	(157)	40
K2PF	15,265	122	(111)	43
WA2UDT	6,786	87	(0)	39
K2EWA	5,040	72	(0)	35
NR2I	3,219	37	(37)	29
New Mexico				
*A19X	32,634	255	(156)	49
KN5S	4,290	65	(0)	33

New York				
*NW2J	47,372	363	(185)	52
N2AZS	42,200	331	(182)	50
N2UN	24,112	201	(146)	44
K2AU	17,136	165	(78)	42
WJ2O	16,892	156	(100)	41
W2HG	9,675	94	(37)	43
W2DUN	6,510	70	(70)	31
W2KTF	6,432	67	(67)	32
N1CC	4,205	57	(31)	29
W2WSS	1,800	30	(30)	20
WB2TKD	1,496	34	(0)	22
North Carolina				
*AA4NC	58,264	524	(171)	56
KF4GW	17,664	192	(0)	46
KJ4TI	7,350	105	(0)	35
KS4S	2,376	44	(11)	24
North Dakota				
WB00	2,548	43	(12)	26
Ohio				
*N8BJQ	51,993	420	(141)	53
K8MR	39,538	311	(124)	53
W8IQ	112	8	(0)	7
Oklahoma				
*W5TZN	48,336	400	(112)	53
Oregon				
N6TR	73,617	606	(177)	53
N7IXI	8,658	104	(26)	37
Pennsylvania				
W3HDH	49,588	387	(238)	49
N6CQ/3	45,900	340	(340)	45
KC3M	19,890	178	(86)	45
K3WW	18,612	166	(64)	47
W3FJY	10,720	134	(0)	40
KY3M	7,740	86	(86)	30
WA3KOI	4,959	57	(57)	29
N3CZB	4,950	50	(50)	33
WB3IFE	1,900	38	(0)	25
WA3JXW	900	23	(14)	15
W3TDF	264	12	(0)	11
Rhode Island				
KA1QIA (N/T)	448	16	(0)	14
South Dakota				
*KD0EE	35,231	294	(131)	49
Tennessee				
KV4F	34,020	315	(0)	54
AB4CA	11,266	106	(50)	43
Texas				
W5ASP	45,414	354	(133)	54
KY5N	32,976	277	(133)	48
NX5Z	30,350	257	(93)	50
W5NR	25,152	192	(140)	48
WA5IYX	23,088	222	(0)	52
N5COP	23,030	220	(50)	47
K5LZO	22,795	211	(43)	49
WF5E	18,533	178	(75)	43
WN4KKN/5	17,100	142	(58)	50
WB5RUS (N/T)	7,708	94	(0)	41
Utah				
WE7B	15,703	155	(73)	41
WB7TJI	14,432	135	(58)	44
Vermont				
*WA1JVJ	63,918	477	(252)	53
KA1RRX	1,320	30	(0)	22
Virginia				
W4XD	10,368	96	(96)	36
N4JED	2,496	48	(0)	26
West Virginia				
*KD8SE	17,766	172	(34)	47
Wisconsin				
KB9S	65,395	519	(151)	55
N9HDE	21,805	180	(85)	49
K9OSH	17,940	170	(50)	46

KA9CHM (N/T)				
	16,014	157	(0)	51
K9JIG	13,904	158	(0)	44
WA9RIR	12,032	128	(0)	47
NI9C	9,660	105	(66)	35
WA9ZSO	8,692	106	(0)	41
W9HE	8,316	84	(84)	33
NOBSH/9	3,538	49	(24)	29
W9WI/M	2,125	40	(5)	25
Wyoming				
*K7MM	26,145	218	(145)	45
Maritime				
VO7AW	11,736	117	(92)	36
VE1BZO	3,198	82	(0)	39
Quebec				
VE2MS	6,592	104	(0)	32
Ontario				
*VE3BQL	30,550	232	(186)	47
VE3TJL	2,208	46	(0)	24
VE3BXY	2,080	40	(0)	26
VE3LPF	260	13	(0)	10
Saskatchewan				
*VE5FN	31,200	325	(0)	48
VE5AGM	14,625	120	(85)	45
Alberta				
*VE6DZ	17,511	159	(131)	39
VE6BMX	243	9	(9)	9
British Columbia				
VE7DLM	61,656	487	(127)	56
VE7NKI (N/T)	5,508	68	(68)	27
VE7EKS	1,080	26	(20)	15
NWT-Yukon				
*VE8CM	24,550	245	(1)	50
Asia				
*JA1MZM	11,583	118	(61)	39
JA9CWJ	4,536	54	(54)	28
JH1UUT	2,600	50	(0)	26
J11JVG	912	26	(5)	16
JG7LBN	8	2	(0)	2
Europe				
*UP1BWW (UP2BKW op)	34,080	273	(164)	48
LA8PF	28,714	218	(150)	49
DL4RX	23,715	183	(161)	45
F6BEE	14,826	132	(89)	42
G3WPF	9,945	85	(85)	39
YO2BP	8,532	79	(79)	36
N4QIV/IO	6,435	82	(31)	33
DL1ZQ	5,841	63	(51)	33
SP6HEK	4,950	50	(50)	33
DL7CS	4,356	44	(44)	33
LZ2AX	3,000	44	(37)	24
EA4BVE	2,050	41	(0)	25
LA3CG	1,656	36	(0)	23
OK1DKS	1,280	32	(0)	20
DJ5GG	1,122	22	(22)	17
DF2HL	714	21	(0)	17
G0DYO	560	20	(0)	14
YU7FT	336	14	(0)	12
YU7SF	192	8	(8)	8
LA4TG	98	7	(0)	7
ON8WN	98	7	(0)	7
YU7KM	48	4	(4)	4
4U1ITU (W4KM op)	44	4	(3)	4
SP6DVP	8	2	(0)	2
Oceania				
*YB2CTW	2,425	40	(17)	25
South America				
*PY5ZBA	23,920	225	(70)	46
PY4VD	6,230	89	(0)	35
ZP5XFA	4,680	65	(0)	36
Check logs: KB4BVP, WJ6Q/M (Shasta Co.), EA3ELM.				