

SUNSPOTS



REDWOOD EMPIRE DX ASSOCIATION

P.O. Box 750834, Petaluma, CA 94975

A DX and Contest-minded Amateur Radio Club serving the California coast north of the Golden Gate Bridge

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Visit our Web Site at <http://www.redxa.com/>

MEETING ANNOUNCEMENT

Wednesday, February 13, 2013 at Cattlemens Restaurant, Petaluma. If you need directions, please call one of the club officers.

6 pm — Social Hour in the Lounge
7 pm — Dinner and Meeting
8 pm — Program

PROGRAM: Our Program for the evening will be by Alan, K6SRZ who will present a video and discussion of his first hand experience as a member of the 3D2C Conway Reef DXpedition.

REDXA President's Report

We learned a lot about improving our signal on 160 at last month's meeting. Jim Brown, K9YC gave us an in-depth presentation on attaining a good signal on 160 meters from a city lot. We learned a lot about antenna efficiency, radiation patterns and reducing noise and much more. A big thanks to Jim for his presentation and making the long trip from Santa Cruz to Petaluma.

This month we have Alan, K6SRZ giving us a presentation on the 3D2C Conway Reef DXpedition. He'll also show a video he produced of his experience during the DXpedition. We look forward to seeing you all at the meeting.

March will be K6UFO, Mark Aaker and his program on QRP DXing and Contesting. April brings us antenna guru N6BV, Dean Straw and May is tentatively scheduled for the joint meeting. Planning is already underway for the tri-club meeting between MLDXCC, NCCC and our group. I'll let you know as we firm up the details.



BOARD OF DIRECTORS MEETING JANUARY 2013

by Rick, N6GY

A meeting was held at 6:00 p.m. at Cattlemens Restaurant in Petaluma with 7 directors present. Several housekeeping issues were discussed and decided on. Plans were discussed about future Board responsibilities. The meeting was adjourned at 6:30 p.m.

JANUARY MEETING MINUTES

by Rick, N6GY

President Jim K6JS called the meeting to order at 07:50 pm, January 9th 2013 at the Cattlemens Restaurant in Petaluma.

There were 25 members and 4 guests in attendance. Jim entertained a motion to accept the minutes of the last meeting and the treasurer's report as published in the last issue of "SUNSPOTS". The motion was made, seconded and carried.

Jim introduced Bob KC6AWX and Mel AB6QM as new members?

He also introduced Jack K6VXI and Tom AG6OX from San Francisco who were visiting.

He also mentioned Gary N6XY who would be joining the Club, probably in April.

Jim commented that according to records he discovered, the membership roster contained 61 members in 2006, and now numbers between 67 and 69, despite attrition. He commented that based on that we were doing well.

He thanked the 12 to 15 members that participated in the ARRL 10 meter Contest December 8th and 9th. Conditions were poor, but gradually improved by Sunday. This was yet another Club Participation Contest by REDXA, and he hoped all turned in their logs in time.

He personally took part in the Straight Key Night on January 1st from his cabin at Lake Tahoe, and thinks he made at least 10 QSO's, including KPH at Pt. Reyes who had a big signal.

He mentioned the upcoming programs are: February K6SRZ on the 3D2C DX-pedition he took part in. March Mark K6UFO was giving the program. April Dean N6BB was the presenter. And May was a possible joint meeting with the NCCC Club that is still being negotiated. He was asked if the MDARC Club would be joining us? He said he didn't know, details still being worked out.

He acknowledged the request from some members to go over logging programs sometime in the future. He felt the program "N1MM" that the Club uses for Field Day would be the most likely subject.

Member Chuck N6OJ asked if anyone was interested in car pooling to attend the upcoming NCCC meeting being held in Vallejo at the China Wok Restaurant Monday January 14th at 6pm. Jim said he would put it out on the REDXA Reflector.

Ken N6KM, also a member of the Valley of the Moon ARC (VOMARC) mentioned that they had a TH7B and a HAM4 Rotator for sale from an estate sale if anyone was interested? Also they are doing a VE Test session January 26th if anyone would like to upgrade. See Ken N6KM at kmct@vom.com for info.

The 50-50 raffle collected \$110 and half was won by Saraj KU6F.

Jim then turned the meeting over to Jim Brown K9YC for an informative look at operating 160 meters from a small lot.

The meeting was adjourned at 9:50 p.m.

Monthly San Francisco Section News Summary

Here is the link for the News Summary:
<http://www.arrl.org/sections/?sect=SF>

Treasurer Report

by Saraj, KU6F

REDXA TREASURER'S REPORT

12/31/12 Balance Forward		\$2,950.32
INCOME		
Dues	380.00	
Raffle	55.00	
TOTAL INCOME		435.00
EXPENSES		
Reimb Xmas Dinner Dep.	35.00	
Speaker's Dinner	47.46	
TOTAL EXPENSES		(82.46)
1/31/13 Ending Balance		\$3,302.86

REDXA membership renewal is due for 2013.

Thank you to everyone who has paid up. As of this writing I'm still down 25 members, but I haven't been to the post office box in 3 weeks.

If you've already mailed me your membership dues please disregard. If you haven't, please mail them in! You can mail to the REDXA POBox, or directly to my home (this is the most expeditious!):

Saraj Cory, KU6F, 1283 Mark West Springs Road, Santa Rosa, CA 95404

Contesting

by Jim, K6JS

REDXA members showed up in force for ARRL RTTY Roundup. Stu, K6TU came out on top with over 1400 Q's and 159,000 points. Ron N6IE was hot on his tail with 1388 Q's and 141,000 points. N6IE might have caught him if I hadn't called him on the landline on Sunday afternoon. (HiHi). We had a couple members that participated in the MS/HP class, W6DR and K6MM both were on separate teams that worked at least 1000 Q's. Chuck, N6OJ almost broke the 1000 Q mark and he was running low power. Great job in the Roundup guys!

We also had good participation in both NAQP's (SSB and CW) in January. Bill, N6ZFO swept the top spot in both events with a little over 900 Q's in both events. He had 240 multipliers in CW and 192 in SSB. Alan, K6SRZ was 2nd on the CW side and John, K6MM 3rd.

In the SSB NAQP Stu, K6TU was 2nd and Alan, K6SRZ came in 3rd. We had close to 20 logs submitted in the first 2 NAQP's.

If the claimed scores hold, the NCCC will have won 3 contests(above) in January! NCCC also won the team competition for the NAQP CW contest last August and the CW Sprint contest last September.

I noticed an interesting contest promoted by a group of Hellenic (SV) hams. It's a ham radio "Triathlon". A triathlon is a multi-sport event involving the completion of three continuous and sequential endurance events. The famous Ironman Triathlon consists of a 2.4-mile swim, a 112-mile bicycle ride and a marathon 26.2-mile run, raced in that order and without a break.

The Triathlon Dx Contest tries to simulate the original Triathlon athletic event, by competing in the three major ham radio modes, SSB, CW, RTTY. A 24 hour non-stop event divided in three sections, each one devoted to a different mode. The real kicker to this contest is the prize. A whopping 10 days ALL-PAYED(except airfare) to a resort on Zante island in Northern Greece.

Contesting season is in full swing and there is plenty to keep you busy this month. CQ WPX RTTY is in the log this past weekend. I noticed some impressive scores posted by some of our members. The ARRL DX CW is the weekend of February 15th and NAQP RTTY is February 23rd. The ARRL DX SSB is the first weekend in March.

Have fun!

DX News

by Jim, K6JS

Here is some DX to hunt for during the month of February. Check your favorite DX bulletins for additional listings. Good luck and have fun.

T6LG Afghanistan LotW Jan 03 to Feb 28

JD1 Minami Torishima Jan 15 to Apr 15 By JG8NQJ as JG8NQJ/JD1; 17-10m; CW; spare time operation; JA QSL via JG8NQJ Buro, others via

JG8NQJ Buro or JA8CJY direct

6W2SC Senegal Jan 17 to Mar 10 QSL Direct
HA3AUI - By HA3AUI; 40-10m; CW; some IOTA
+ WFF activity; dates approximate; OQRS to be
available after return to HA

TZ6BB Mali Jan 24 to Feb 28 QSL W3HMK
N6ML duration unclear; may be long term

J5UAP Guinea Bissau Jan 25 to Mar 10 QSL
Direct HA3AUI - By HA3AUI; 40-10m; CW; some
IOTA activity; dates approximate; OQRS to be
available after return to HA

ST2SF Sudan Jan 26 to Apr 15 LOTW - By
K0YAK; 40-10m, perhaps 80 6m; SSB CW +
digital; 100w; QSL also OK via K0YAK; exact start
date unclear

ZK3T Tokelau Jan 27 to Feb 20 QSL DJ2EH - By
DJ2EH

8Q7AK Maldives Feb 01 to Feb 28 G7COD
VA3RJ - QSL via Buro or direct, also eQSL

S79 Seychelles Feb 03 to Mar 11 QSL CX3AN By
CX3AN Pointe Larue, Victoria; 80-6m; mainly SSB
CW

5V7JD Togo Feb 04 to Mar 15 F8AEJ QSL Direct
- By F8AEJ from Lome; windom; holiday style
operation; QSL also OK via eQSL

5X8C Uganda Feb 07 to Feb 18 LOTW F5NQL -
160-6m; CW SSB RTTY PSK; 6 stations; 20 ops -
QSL also OK via F1NGP, REF Buro or direct,
OQRS available

3D2 Rotuma Feb 08 to Feb 21 LOTW By W7YAQ
as 3D2RX and N7OU as 3D2RO; 160-10m; mainly
CW, some RTTY SSB; verticals next to saltwater,
north facing; QSL also OK via home_call. CQ WW
WPX Contest, RTTY (Feb 9-10, 2013)

XU7ACQ Cambodia Feb 10 to Mar 18 By QSL
KF0RQ; 80-10m; SSB CW + digital; looking for
Delaware + South Dakota for WAS

6V7S Senegal Feb 11 to Apr 03 QSL RK4FF

Direct By RK4FF; HF

V63ZM Micronesia Feb 13 to Feb 23 QSL
M0URX 5B4AGN By 5B4AGN; 80-10m, perhaps
160m; high power

9U4U Burundi Feb 14 to Feb 23 LOTW By ON
PA GM team; 160-10m; SSB CW RTTY; QSL also
OK via M0URX, Buro or direct

XV2DLH Vietnam Feb 15 to Feb 26 QSL DK8ZZ
By DK7PE DH6ICE DH0RAK DK7TF DK8ZZ.
Active ARRL DX Contest, CW (Feb 16-17, 2013)

KG4 Guantanamo Feb 16 to Feb 23 QSL Home
Call By KN4KL as KG4KL and W4WV as
KG4WV; spare time operation while making repairs
necessitated by hurricane Sandy

XT2TT Burkina Faso Feb 21 to Mar 07 QSL
OQRS By I1HJT I2YSB IK2CIO IK2CKR IK2DIA
IK2HKT IK2RZP JA3USA 160-10m; CW SSB
RTTY; exact dates TBD. CQ 160m Contest, SSB
(Feb 22-24, 2013) Check here for pericontest
activity too.

Z8 South Sudan Feb 26 to Mar06 QSL K4ZW By
K4ZW as TBD from Juba; focus on low bands

TX5K Clipperton Island Feb 8 to Mar 10 N2OO
By KK6EK + international team; all bands; all
modes March ARRL DX Contest, SSB (Mar 2-3,
2013)

MARCH

9M4SLL Spratly Mar 10 to Mar 18 QSL LOTW
By 9M6XRO 9M6DXX 9V1YC DJ0YI N6MUF
G3BJ EA3NT KM0O, several stations; verticals;
QSL also OK via M0URX (Buro, direct, or OQRS)

REDXA Calendar of Upcoming Events:

by Doug, WW6D

Feb 9-10	CQ WW WPX RTTY
Feb 13	* REDXA Monthly Meeting
Feb 16-17	ARRL Int'l DX CW
Feb 23-24	NA QSO Party RTTY
Mar 2-3	ARRL Int'l DX SSB
Mar 13	* REDXA Monthly Meeting
Mar 30-31	CQ WW WPX SSB
Apr 10	* REDXA Monthly Meeting
Apr 19-21	Int'l DX Convention - Visalia
Apr 27-28	Florida QSO Party
May 4-5	7th Call Area QSO Party
May 8	* REDXA Monthly Meeting
May 11-12	CQ-M Int'l DX Contest
May 25-26	CQ WW WPX CW
Jun 8-10	ARRL June VHF
Jun 12	* REDXA Monthly Meeting
Jun 15-16	All Asian DX CW
Jun 22-23	ARRL Field Day

Refer to <http://www.hornucopia.com/contestcal/> for more contest information.

Streamlining CQP

(a.k.a. Getting the results DONE)

Stu Phillips – K6TU

The California QSO Party is the largest state QSO party and now receives as many logs as some of the major ARRL con-tests. Although submitted logs were down this year (869 logs versus 985 in 2011) the average log size increased and activity was up!

Last year we found ourselves behind the power curve getting the results scored and compiled. Our post contest re-view showed we had lots of problems from log capture, log scrubbing, scoring... in short the whole end to end process was held together with chewing gum, bailing wire and too much human effort.

By August last year we realized we had a second and far more worrisome challenge – many of the stalwarts that had held the chewing gum and wire together were out of bandwidth due to personal and work commitments. Things were looking ugly.

A core team of Alan K6SRZ (CQP Chair), Alan AD6E, John K6MM, Dean N6DE, Kevin K6TD and Stu K6TU was quickly formed and a timeline drawn up. We broke down each stage of the contest and laid down milestones that needed to be completed. For each milestone we recruited an owner and set a weekly conference call to track progress.

Our 2011 problems had begun right after the contest was over. Despite publishing a web form as the mechanism for log submission, some 40% of logs had still been emailed to the contest robot. Except there WAS NO ROBOT! Dean N6DE, who had personally reviewed each and every log he received for correct format or conversion, had staffed the CQP log email account. Not only was this a herculean task but Dean was swamped at work and literally was out of bandwidth.

But Contest log submission is a standard, right? Cabrillo is the standard and everyone sends in Cabrillo logs, right? That would be 2 x NO! Logs arrive mostly in Cabrillo. Cabrillo generated by 80+ logging programs some of which interpret the Cabrillo specification in unique (and wrong!) ways for CQP. We also get about 10% of logs in every format you can think of... ADIF, Excel spreadsheets and my personal all-time-favorite – a PDF of a Cabrillo log print out. But the problem hadn't stopped there... data in the Cabrillo files wasn't always valid for CQP (or the Cabrillo spec for that matter).

Here are some of the novelties we encounter every year:

A mode of SSB/USB/LSB (Cabrillo spec says PH or CW)

Country name instead of DX

A sent QTH of "SANTA CLARA" or "CA" – not CQP valid exchanges

It goes on and on... Last year, a lot of this invalid data made it into the log checking process and caused endless runs of GREEN (the CQP log scoring program) and manual edits of literally hundreds of logs. This in turn has led to some logs being missed in the scoring and results compilation process which then needed multiple iterations of the final score table.

After much discussion with K6TD and AD6E, both past CQP-chairs themselves and with a wealth of war wounds from this process, we agreed we needed a new log collection process and a way to keep the data clean from the start. A database was the obvious choice but time was getting tight... To be confident that we had a workable solution, we needed to have something up, running and tested by the middle of September.

At the beginning of August, Stu K6TU laid down a proposal to implement a new contest robot that would feed a data-base. John K6MM put together a new web form on the CQP web site that fed all submitted logs plus those sent to the CQP LOG alias into a master email account with a backup archive in a separate account.

Stu started coding and reached out for help. Steve W1SRD and Tom NS6T both stepped forward – Steve designed the master schema for the database and Tom started work on the report generation driven from the database.

Stu implemented a new robot that was driven from a GMAIL account. We had had challenges in the past with email robots because there are so many different ways of specifying attachments. Fortunately Google had spent a lot of re-resources to get this right and provided a standard protocol (IMAP) to access email accounts programmatically.

Using Amazon Web Services, Stu spun up robot.cqp.org which hosted the newly crafted email robot and the MYSQL database that would hold all the incoming logs. We knew that there would still be logs in non-Cabrillo formats so once again George K6GT stepped up to handle all process of Cabrillification.

The new robot provided a lot of upfront log validation – where possible, logs that were valid Cabrillo were automatically loaded into the database and an acknowledgement email sent. Non-standard logs were divided into different issues such as invalid Cabrillo, a non-Cabrillo format etc. These also generated a response and were flagged for human attention.

W1SRD had designed a database schema that

would help clean up many of the systemic problems that we knew would occur. The process of cleaning up the logs occurred in parallel with the log submission process through a number of additional utilities written by Stu. The database also enabled rapid correction of any problems that crept through – fortunately there weren't many of these!

Because of Hurricane Sandy, we extended the log submission deadline by two weeks – there were a number of East Coast stations that couldn't retrieve their logs due to the ongoing power outages. This took us to the middle of November.

By the beginning of December, Stu had scrubbed all the logs and ran them through the GREEN scoring engine. We scheduled a training session for the 15 log checkers:
K6SRZ K6TU W4UAT AD6E W6OAT NI6T KM6I
N6NUL KE1B K6DGW W1RH N6DE N6GY
K6OK K6XX

Dean N6DE did a webcast for the training and John K6MM arranged to record the session for reference by the log checkers as needed.

Thanks to all the log checkers, the log checking was completed before Christmas! We were almost two months ahead of the 2011 process.

Stu collected back all the logs and began the process of scoring the checked logs (again with GREEN), loading all the scores into the database and chasing down a handful or two of wayward logs that had gone AWOL in the log checking process.

By the beginning of January, Stu passed the baton to Tom NS6T to generate the PDFs of all the log reports. In the past, the work to generate the score report had involved a large Excel spreadsheet and a lot of manual manipulation – a process which itself had usually taken 4-6 weeks.

Within a week Tom had the draft reports generated! These were circulated to the same CQP core team listed above and the eagle eyes of Dean and Kevin applied to the results themselves.

The results were done before the end of January allowing Alan K6SRZ to start ordering plaques and

printing wine bottle labels for the winners. The results for CQP 2012 were a wrap and you can find them later in this issue of the JUG.

BUT... it doesn't stop there. This year we are continuing the re-tooling process. Tom NS6T, Matt WX5S and Stu K6TU are working on further improvements to the process with the goal of having the results finished by the end of November. No, this isn't a typo... our goal is to get the results published 30 days after the log submission deadline. We don't know if we can do this – and we may not be able to reach the goal in 2013 but it's the objective.

No write up of CQP would be complete without acknowledging the work of Bob N6TV in stumping for the county activation plan, Matt WX5S for writing GREEN and his encyclopedic knowledge of the process & issues, or John K6MM for his PR work and web mastery of the CQP site.

Thanks to all and onward for CQP 2013!
Stu K6TU

N6GY (CDF) WEATHER FORCAST STONE

Instructions: hang stone from overhead branch or support in clear area.

CONDITION	FORECAST
WET	RAIN
DRY	NO RAIN
SHADOW ON GROUND	SUNNY
SWINGING	WINDY
CAN'T SEE	FOGGY
JUMPING ERRATICALLY	EARTHQUAKE
STONE GONE	TORNADO

Contest Scores

NAQP - CW

STATION	CLASS	QSOs	MULTS	SCORE
N6ZFO	SOABLP	919	240	220,560
K6SRZ	SOABLP	871	215	187,265
K6MM	SOABLP	745	196	146,020
K6TU	SOABLP	555	174	96,570
K6LRN	SOABLP	479	156	74,724
KG6N	SOABLP	319	118	37,642
K3FIV	SOABLP	187	88	16,456
K6CTA	SOABLP	210	61	12,810
NM6E	SOABLP	39	25	975
W6DR	SOABLP	18	18	324

NAQP – SSB

STATION	CLASS	QSOs	MULTS	SCORE
N6ZFO	SOLP	932	192	178,944
K6TU	SOLP		817 178	145,426
K6SRZ	SOLP		650 154	100,100
K3FIV	SOLP		378 131	49,518
K6LRN	SOLP		301 60	18,060
W6DR	SOLP		172 68	11,696
K6MM	SOLP		220 52	11,440
K6RIM	SOLP		65 35	2,275
NM6E	SOLP		39 25	975

CQ 160 CW

STATION	CLASS	QSO's	States &Provinces	Countries	Score
W6DR	SOAHP	169	45	12	28,044
K6MM	SOAHP	184	43	3	19,642
N6ZFO	SOnaHP	109	40	8	15,216

ARRL RTTY Round

STATION	Class	QSO's	States & Provinces	Countries	Score
K6TU	SOHP	1,412	56	57	159,556
N6IE	SOHP	1,388	56	46	141,576
K6MM	M/S HP	1,000	57	52	109,000
W6DR	M/S HP	1,138	56	26	93,316
N6OJ	SOLP	939	57	33	84,510
K6LRN	SOHP	550	56	35	50,050
K6TD	M/S HP	519	53	21	38,406 ?????
W6SFK	SOLP	404	54	29	33,532
K3FIV	SOLP	349	52	20	25,128
K6CTA	SOHP	316	51	25	24,016
K6SRZ	SOHP	54	24		1,296

BARTG SPRINT - JANUARY 2013

STATION	CLASS	QSOs	MULTS	CONT	Score
W6SFK	SO.HP	446	56	6	149,856

Is 4-6 a GOOD signal? YES!

by Rick, N6GY

We live in a world of hype and extremes. You are told your menu choice is "Super". Your presentation was "Excellent". Gratification is a good thing (note, I didn't say "super") I suppose, but has little technical merit, except to stroke someone's ego.

The following are the voice (SSB/FM) signal reports. Yes, you all know them. But consider what they mean. Do you just want to give a fast 5-9 and send your contact on their way? Or do you want to "go the extra mile" and give a relevant signal report that helps them evaluate propagation, direction, etc? In a contest, sure, you are running a rapid rate (hopefully). In DX, maybe not so much?

- 1 – UNREADABLE -----1 - FAINT
- 2 - BARELY READABLE---2 - VERY WEAK
- 3 - WITH DIFFICULTY-----3 - FAIR
- 4 - SOME DIFFICULTY-----4 - FAIR
- 5 – PERFECT-----5 - FAIRLY GOOD
- 6 - GOOD
- 7 - MODERATELY STRONG
- 8 - STRONG
- 9 - EXTREMELY STRONG

I'm happy with a 4 - 5 ANYTIME! It tells me the station giving the report is considerate and analytical. That helps me with propagation and knowledge.



January 2013



Conducted by K6JS



REDXA Honor Roll

WARC BANDS

30M		17M		12M	
W6XA	326	W6XA	335	W6XA	327
K6RIM	319	K6RIM	329	K6RIM	294
KC6AWX	228	N6OJ	317	KC6AWX	239
N6OJ	221	KC6AWX	301	N6OJ	233
K6ANP	169	N7PIB	167	N6IE	134
N6IE	165	N6IE	165	N7PIB	120
K6SRZ	154	K6ANP	162	K6SRZ	106
W6SFK	66	K6SRZ	143	W6SFK	113
AG6V	3	W6SFK	144	K6ANP	72
N6GY	3	N6GY	8	N6GY	47

KC6AWX enters the fray

KC6AWX is knocking at the door

W6XA still at the top

ARRL DX Challenge

W6XA	2985
K6RIM	2530
KC6AWX	2148
K6ANP	2131
K6SRZ	1770
N6OJ	1674
N6IE	1256
N7PIB	1123
W6SFK	931

KC6AWX moving on up

160 Meters

W6XA	224
W6OSP	177
K6ANP	158
K6SRZ	150
K6RIM	55
N6OJ	57
N6IE	37
KC6AWX	27
N7PIB	15

N6IE enters the fray

1.5K Club

W6XA	1689
K6RIM	1588
K6ANP	1371
N6OJ	1352
KC6AWX	1345
K6SRZ	1124
N6IE	1043
W6SFK	610
N6GY	148

W6XA still at the top

Rules for REDXA Honor Roll Listings.
Provide me with your total IOTAs worked, or countries (including deleted) worked for: WARC Bands, 160 Meters, Digital modes, Mobile, 6 Meters or your total for 80,40,20, 15 and 10 for 1.5K Club. Countries do not count until HQ Awards Committee takes action and announces a start date for a new country.



K6QXY	170
W6XA	130
K6RIM	14
KC6AWX	8
K6ANP	6
W6SFK	2

K6QXY adds another new one



N6OJ	298
KC6AWX	284
K6RIM	253
N6IE	185
W6XA	162
W6SFK	152
K6SRZ	140
K6ANP	123

KC6AWX is on OJ's heels

Send your REDXA Honor Roll updates to:

Jselmi@hotmail.com

Updated 2-11-13

Mobile DX



N7PIB	121
K6JS	76
W6SFK	3

K6JS adds 5 new ones

DXCC Mixed

K6RIM	366
N6OJ	360
W6OSP	353
W6XA	352
KC6AWX	348
K6SRZ	346
W6SFK	258

W6SFK works 12 new ones!!!

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MEETING: FEBRUARY 13, 2013

