



SWOT BULLETIN

THE OFFICIAL NEWSLETTER OF THE
SIDEWINDERS-ON-TWO RADIO CLUB

PROMOTING SSB, CW & DIGITAL OPERATIONS ON 144MHz AND UP

VISIT US ON THE WORLD WIDE WEB AT :

www.swotvhf.org

<http://groups.yahoo.com/group/sidewindersontwo>

BULLETIN # 287

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S.W.O.T. GENERAL INFORMATION

- Send renewals and new applications for membership to Howard Hallman WD5DJT (See address above). Please make all checks payable to SIDEWINDERS ON TWO. Include your SWOT # for your renewals.
- Send your SWOT "Members Worked" from your log to, SWOT Awards manager, Wade Massey, 1016 Weiss Ave, Princeton TX., 75407 \$1.00 fee for certificate and your certificate number would be appreciated, also SASE.
- E-Mail all articles and reports to the Editors' Web addresses listed above or you can mail them to KA5DWI, 6516 Simmons Rd, NRH, TX 76180-4243.
- **MERCHANDISE:**
Decals and listings available for \$1.00 each for shipping and handling from the Secretary/Treasurer.
SWOT PATCHES ARE AVAILABLE AT PRICE OF \$4.00 EACH + \$.50 FOR MAILING
Badges are available from "The Sign Man", Rick Pourciau NV5A, <http://www.thesignman.com/menu.html>

In this issue:

- | | |
|---|--------|
| • The Chairman's Corner | Page 2 |
| • From the Editor's Desk | Page 2 |
| • Latest NORCAL SWOT Meeting and 2002 Recap | Page 3 |
| • The World of Digital Communications on VHF - Part 3 | Page 3 |
| • New Ideas for the July CQ WW VHF Contest | Page 4 |
| • Weak Signal Operating Tips – Contesting on 2 Meters | Page 4 |
| • On the World Wide Web | Page 5 |
| • The 2002 Geminids Meteor Shower and Meteor Scatter Contest Member Reports | Page 5 |
| • CS VHF States Above 50 MHz Award 2001 SWOT Results | Page 6 |
| • DX Reports December 16-January 15 | Page 6 |
| • What to Expect January 16-February 15 | Page 6 |
| • Lunar, Solar and Astronomical | Page 7 |
| • Event and Contest Calendar | Page 7 |
| • SWOT Net Announcements and News | Page 7 |
| • SWOT Net Reports | Page 8 |
| • Membership Application and Renewal | Page 9 |
| • SWOT Net Listings | Page 9 |

The Chairman's Corner

By John Petersen, KM5ES

I hope that everyone has had a nice Christmas and your New Year Celebrations were a success. Resolutions will be made and broken. One resolution I would like to see everyone do is invite someone to join in on one of our nets SWOT sponsors. Also, try to make more contests and make more noise on VHF/UHF this New Year.

I have noticed in this area, that this time of year is usually a lull in activity. Please support your local SWOT Net and any other weak signal activity in your area. The net controls would appreciate it, it covers up dead air time. We like to see and hear from each of you.

I hope this New Year that SWOT continues to grow and we get more members and more activity going. I am looking forward to this spring and summer to get to see some of the members at Central States VHF Conference in Tulsa, Oklahoma.

That's all for now 73 Good DX
John KM5ES #3331
SWOT Chairman

From the Editor's Desk

By Art Jackson, KA5DWI

A Happy New Year and a little standing on the Soapbox.

Sure was good to get another year under the belt. I am still on an extended vacation and doing the best I can to improve the station and work a little DX.

Earlier this month, I asked you all to give me a recap of what you all have been up to in 2002. Anything of interest to Weak Signal operation as well as personal info that you would like to share is most welcomed. This bulletin is a great way to reconnect you all with lost contacts and friends.

So far I have **not** received any feedback. So, at least I will give you mine. You could use it as guide to submit one for the bulletin. Please feel free to improvise.

2002 Recap - KA5DWI:

My 2002 VHF/UHF Production was about the same as 2001. For the CSVHF Society "States Above 50 MHz" award, I will have a total of 56, one plus last year's total. The only problem is that this year you can include Canadian provinces. On 2001 rules, I would have only have a total of 49. The award is based on a total of states and provinces worked on every VHF and UHF band. Thank you Canada!

Unfortunately 2002 was not a very good propagation year for 2 Meters and up. Only one good Sporadic E (08/03) and "Super-refraction" Tropo opening (04/30-05/01) occurred the entire year here in North Texas. Despite poor conditions, I managed to work 4 news grids on 2 Meters (now at 181). The Leonids meteor shower takes credit for 2 of them, plus the first new one using WSJT FSK441.

I did have better results with 432 MHz with 5 new grids towards VUCC and two big F2 openings on 6 Meters helped me get 21 new grids to the big collection on that band.

After all the DX was over in late November, I did get a tower up, replaced the feedlines and resurrected the 2-Meter KLM-16LBX. Sure hope that helps things out for me in 2003. I expect a better year.

On the personal side, I visited Little Rock, the San Francisco Bay area and cruised to the Inside Passage of Alaska. I didn't take a single radio on the latter two trips. I also moved my daughter for the 13th time in five years.

So there you are. Let us know what you've been up to.

Other Odds & Ends, Things and Tidbits:

Seems that there is some increase in activity. Hooray!!! With all the new rigs that feature HF plus VHF/UHF, we are beginning to see some new operators and of course potential new members.

It is time for you all to share your knowledge and good operating habits. Print them a copy of the Bulletin or better yet, E-mail them one. Of course get them to join SWOT.

Also, we could teach them some common courtesy. It has been wonderful to hear some more activity on 144.200. Unfortunately, there has been a collection of new ragchewers there as well.

A few weeks ago I answered K5MQ's CQ on .200 through two different ragchew groups. The only comment I got back from the ragchewers was "I think the band is ready to open. I hear someone making a comment about Kansas". Oh boy.....

As the holiday season goes, so does the Bulletin. We are a little thinner, but still some have some good articles on the lighter side of Weak Signal, thanks to our Chairman and our West Coast Director. Hope you enjoy the Bulletin and have a wonderful E and Tropo filled New Years.

73's Art Jackson KA5DWI #2497

Latest NORCAL SWOT Meeting and 2002 Recap

By Larry Hogue, W6OMF



All in all Norcal SWOT had a great Year...
We have 64 members...
We have had four gatherings with wonderful attendance...
We have given away over \$1400 in Door prizes and Donation drawings exceeding \$2100....
Ya can't beatthat...

Thanks to all the great members and non-members for their being there...

March will be the next gathering of the clan...
M² will be the place and we will get more in the later newsletters..
But looking at one of the last two Saturdays in March...

73 Larry, W6OMF-Sue, K6SUE

The World of Digital Communications on VHF – Part 3 of 3

By John Petersen KM5ES

In the past issues we discussed the HSCW, FSK441 and other modes of digital communications on VHF. Now we will talk about JT 44.

JT44 was the second mode that Joe Taylor K1JT developed. It consists of tones that represent letters and numbers and so forth, but in a slow format. Again, this is a breakthrough for QRP communications on vhf.

Using the WSJT program by K1JT in the JT44 mode will give you results that will astound you. I have worked stations 500 miles away using a little as 10 watts and even down to 5 watts of power. My first contact from EM25 was to KOSM Andy in EN10 near Lincoln Nebraska.

The JT44 program allows you to receive stations the human ear cannot hear well below the noise. I have worked 20 states using JT44, but it gets a lot better. JT44 is now being used daily on EME (Earth-Moon-Earth) contacts.

On a typical moonrise or moonset, using JT44, you can work stations around the world. Jerry Casey, N5OSK SWOT#2959 has worked several other countries including Russia, Germany and Sweden using JT44 for his EME contacts. You don't have to have a kilowatt and an EME array to do this, but it does help. Many stations with 150 watts and a single long boom yagi have completed with stations in Europe.

So what do I need to run these modes on 2 meters or 6 meters?

Well first, your rig must be capable of doing USB, second a computer that is faster than a Pentium 100MHz. For the software, go to <http://www.google.com> and type in WSJT.

Now you need an interface between your computer and radio. I recommend the Rigblaster by West Mountain Radio at <http://www.westmountainradio.com> Hook this all up, then do some listening and reading.

On the Internet, type in "W8WN" into Google and look at the MS Procedures Pages. Probably the best webpage that has it all is at WB5APD's Website at: <http://www.qsl.net/wb5apd>.

There you can find out anything you need to know about Meteor Scatter. Last but not least, go to

<http://www.pingjockey.net> and look for information about the Chat Page.

If your tired off waiting on 2 meters or 6 meters to open up, open up your horizons on VHF using digital communications.

73 John Petersen KM5ES
SWOT Chairman #3331

New Ideas for the July CQ WW VHF Contest

By John Lindholm, W1XX

Happy New Year VHF contesting galaxy!

An introduction: As has been announced in CQ Magazine, I have recently picked up the reins of VHF Contest Director for the publication's July World Wide VHF Contest. I'd like to take the opportunity to bounce off a couple of ideas.

First, however, I want to applaud Gene Zimmerman, W3ZZ, for his outstanding job in resurrecting the CQ VHF Contest from the grave. Especially as a regular portable operations entry, many others and I have found the 6 and 2-Meter only format of the past three years a welcome relief from the real hard work of a 6 Meter-to-Light operation. Gene has been most helpful to me during the transition. We wish him well in his new duties with QST.

Re QRP -- I operated QRP @25 w out of necessity during the 2002 contest and frankly noticed little difference in my score from running my usual several hundred watts. True, especially on 6 m, I may have missed the 2nd and 3rd layers of callers that would have been attracted to my QRO signal. But I have also operated in ARRL contests with the ARRL defined 10 watts from mountaintop locations...and that will beat almost any QRO home station any time. Also, so far in processing QRP entries for the 2002 contest, all are at 10 watts or less, except two [mine is one] at 25 watts.

Therefore, for consistency between contests...and recognizing radios like the FT-817 and even the old Icom 502, 202, and 402 still much in use at lower power levels...that QRP be defined on VHF at 10 watts.

Many of you know me in past VHF Contests as a "rare grid provider"....having operated portable over the years from 21 different [usually rare] grids, 10 states and 3 DXCC entities....something I have found very rewarding. But the biggest obstacle to such operations is the potential amount of work involved. Eliminating weekend shelter and sustenance considerations as well as

"can you drive there with all this stuff?"...can make for a more fun contest experience.

Thus, how about a subset of the QRP category called the "Hilltopper QRP"...which would be a "Quicke" 6-hour operation...where you would either drive or hike to a nice spot with minimal QRP 10 watt radio....operate from the start of the contest ' til dark and go home?

Perhaps from a rare grid square. If you liked it so much and wanted to do it on the 2nd day...go to another neat spot in another nearby grid square...sign" portable (call area)" to distinguish it from the previous day' s operatn and rovers....operate six hours and call it quits. How' s that for fun? This "easy does it" approach could promote many more portable operations that don' t require the heavy commitment of a full-fledged operation...and be competitive.

I am suggesting that we "unofficially" incorporate this into the 2003 CQ VHF Contest....give editorial highlights of participants in the results...and give certificates to the deserving. If the response is good, put it in the official rules the following year.

The dates and times for the next CQ WW VHF Contest:
Starts: 1800 UTC Saturday July 19, 2003
Ends: 2100 UTC Sunday July 20, 2003

Your comments and on these two minor tweaks and any other suggestions would be much appreciated. 73,

John Lindholm, W1XX
CQ WW VHF Contest Director

Weak Signal Operating Tips – Contesting on 2 Meters

By John Petersen, KM5ES

Before you know it, contest time is just around the bend. Getting ready for the contests is a must from what I have observed in the past 4 years on VHF. What I normally do the week before the contest begins is to check the antenna system for bad SWR's and make sure it is in good working order.

The name of the game is to make as many contacts as possible within the time frame of the contest. One thing I have incorporated into contesting is a Voice Keyer. This comes in handy and saves your voice. I always setup a general CQ call and a reply, although most times will reply I do on my own. There are several different Voice Keyers on the market. I like using the Rigblaster and Voice Key Express. You record your CQ and reply exchange as WAV files on the computer, then you set

them up in a pattern for playback on the Rigblaster. Once you have them all setup them up, be sure you check them out. Set your audio for best output and non-distortion.

You will notice that during the contest or any major event on VHF that most of the activity is going to be on the calling frequency. I try *not* to stay on 144.200 very long. Usually I will call CQ on .200 and say "I'm listening on 180" or whatever. If it is really crowded I usually just park 10 to 15 kHz above or below the calling frequency.

As far as working the contests, I usually run solid for about a 4-hour shift, take a breather and come back and hit it again. Again, this varies due to the activity. If you live in an area with more operators, the activity will be better. I have noticed that in the first 3 hours, the first evening, following morning and just before the contest is over are your major activity times. Everyone does a contest differently; this is just the way I have always done it.

In the past, I have announced on the Pingjockey Webpage that I would be using a specific frequency and time frame in order to pick up extra grids. This is during a lull time of the contest. Working those extra grids helps out tremendously. Meteor scatter in the middle of the night... Of course I posted all of this 24 to 48 hours before the contest so I would stay within legal QSO's.

One thing I would strongly suggest is keeping 144.200 open. Call CQ, then get off to another one. This gives everyone a chance at it.

Good luck in your contesting.
73 John KM5ES

On the World Wide Web

A few sites Weak Signal operators may be interested in. Send in your favorite sites and they will be listed here.

New VHF Website:

Jerry N5OSK has a new website which covers EME and Meteor Scatter activity. Check it out at www.n5osk.com

From a Fellow Pingjockey:

I just finished many hours of work recompiling the latest version of "callsign.txt" for WSJT. I had to do a lot of "fill-in-the-blanks" from QRZ and Buckmaster due to people not keeping their AA1YN file up to date. Check your own vitals and email me any changes. Then update your record on the AA1YN database so it does not happen again. You can download the file from:

<http://hill195.home.mchsi.com/callsign.txt>

73, John, K0PW

Repeat of Upcoming VHF Digital Contest:

Anyone that might be interested that uses digital modes, there will be an ALL Digital Mode VHF/UHF Contest on February 8th, 2003 and everyone and anyone is welcome to participate no matter the number of digital contacts made or size of station.

This is to promote digital use and experimentation on VHF/UHF and hope it might have some interest to some of you.

Please go to this website for more details:

http://hometown.aol.com/dhobson123/html/Page_1x.html

(Wall Certificates will go out to 1st, 2nd, and 3rd place winners of high and low power. To promote more digital use on VHF/UHF anyone sending in a log will be in a drawing for a registered copy of MIXW software to the winner.

Trying to promote experimentation and digital use on VHF/UHF

http://groups.yahoo.com/group/PSK_VHF_UHF_HAMRADIO/

de KB9UMT Don EN50dp

The 2002 Geminids Meteor Shower and Meteor Scatter Contest Member Reports

From John Butrovich III, W5UMB

Here are my results for the Meteor Scatter Contest over the December Geminids. All QSO's were by the digital mode WSJT441.

December 14, all times UTC:

0433	K7ICW	144	DM26
0505	K7TNT	144	DN74
0529	W0AH	144	DM78
0802	AA7A	144	DM43
0818	W0OHU	144	EN34
0850	K0PW	144	EN34
0943	N0PB	144	EM39
1002	WC4N	144	EM17
1018	KD5HIO	144	EM65
1035	KA9CFD	144	EN40
1115	N0UK	144	EN34
1140	NE0P	144	EM04
1700	K7ICW	222	DM26 *****

Finally made it after 3 years!!!!

73 - John W5UWB EL17ax

Editor:

Congratulations on the effort, plus the 222 MHz success.

Central States VHF Society's "States Above 50 MHz" Award 2001 SWOT Results

This award has been passed out for a few years now.

A few of us weren't embarrassed enough not to turn in our scores. We are not on the top of the list, but still a nice showing nonetheless. Everyone should take the time to turn in your 2002 results. The 2001 results are as follows:

W5UWB, John Butrovich III – SWOT #39

17th Overall, 1st in Texas

Total - 72

50 MHz - 43

144 MHz – 20

222 MHz – 3

432 MHz – 3

1.2 GHz – 2

2.3 GHz - 1

W9RVG, Marshall Pochay – SWOT #781

21st Overall, 2nd Illinois, Multi-Op Entry

Total – 67

50 MHz - 25

144 MHz – 17

222 MHz – 11

432 MHz – 11

1.2 GHz – 3

KA5DWI, Art Jackson – SWOT #2497

27th Overall

Total – 55

50 MHz - 36

144 MHz – 14

432 MHz – 5

W0VB, Terry VanBeschoten – SWOT # 883

35th Overall, 2 Meters Only

Total – 37

144 MHz – 37

NL7CO, Don Ross

37th Overall, 2 Meters Only (Best 2 Meter Oklahoma one at least!!)

Total – 33

144 MHz - 33

DX Reports December 16-January 15

By Art Jackson KA5DWI

Each month we will attempt to let you all know what has been going on 2 Meters and give you an idea what you can expect in the next month.

Please Mail or email your DX reports to me and we will get them in the newsletter.

DX Reports

All dates are based on UTC.

Meteors:

Geminids were about normal. Good success on schedules.

Quadrantids peaked during the late morning/ early afternoon of 01/03. Not too much activity.

Aurora:

12/21: Reported in Central Plains and Midwest US

12/27: WY & Central Plains

E Propagation:

01/02: High MUF / Short 6 Meter paths

01/06: High MUF / Short 6 Meter paths

Tropo:

12/16: Enhanced Signals Florida

12/17: Enhanced Signals LA-TX

12/18: Enhanced Signals IN-MO, LA-MO

12/21: Enhanced Signals TX-KS, S.NY-ONT, NC&TN-FL

12/24: Enhanced Signals MN-MO, FL

12/27: Enhanced Signals KY-ONT

12/29: Excellent Midwest US, MO, KS, IA, IL, IN, MN Enhanced Signals TX, LA-FL

01/03: Enhanced Signals IA, MO, KS, NE

01/04: Enhanced Signals IN-NC

01/05: Enhanced Signals MO-MI

01/07: Good LA SWOT Net – MO & OK to LA

01/09: Enhanced Signals MO-KS-IL

01/12: Enhanced Signals KS-TX

01/14: Enhanced Signals FL-GA, NC-GA, MI-MO, KS & TX-OK

01/15: EM02 TX Ragchewers heard in EM31 LA

Sources: DX World 144 Propagation Logger and SWOT Group Page

What to expect January 16-February 14:

This is the best time to do those major projects.

Meteors:

No major showers occur till April. Still WSJT FSK441 will produce ample chances for QSO's. Schedules will be your best bet. There are 13 Minor showers that will peak to give you good opportunities.

Aurora:

We still are seeing good periods of geomagnetic activity as well as coronal holes. Look for 01/23-24 to be active. Be sure to monitor *Today's Space Weather* and *Spaceweather.Com* for possible events.

Tropo:

The El Nino is entrenched and will probably influence our weather until the early summer. Again, this is not good for Tropo. A highly active jet stream is not conducive to its development. Still, adjustments will occur. Tropo development along the coasts will be the

best opportunities and the warmer than normal Central Plains are places to be alert. Look for upper air high-pressure areas developing and stalling over an area for a day or two.

E-Layer Propagation:

We will say goodbye to the Winter "E" season by the first week of February. It has been a nice one for 6 Meters, but has already slowed down the past couple of weeks. Still there has been 2 Meter Es in February.

Moon:

Best days: 01/16-17

Good days: 01/18-21, 02/14-15

Bad days: 01/25 (Day after is the Super Bowl)

Based on low sky noise and path loss readings (DEGR) less than 3dB. Bad days are those with a 10db plus reading.

Lunar, Solar and Astronomical Events

Lunar: Perigee – 01/23, Apogee – 02/07

Full Moon – 01/18, New Moon – 02/01

Highest Declination (Elevation):01/16-17, 02/13

Lowest Declination (Elevation):01/29-30

Solar: Overhead 01/16: - 20.9°S, 02/15: - 12.7°S

Southern Hemisphere E Threshold ends 02/08.

USAF Predicted Solar Flux Average:

01/16-02/14: 150 (Down 8 !!!)

Meteors:

All Showers: 01/16-01/31, 16 Active, 9 Peak
8 are Minor showers
02/01-02/14, 22 Active, 12 Peak
5 are minor showers.

More meteor info at:

<http://comets.amsmeteors.org/meteors/calendar.html>

Event & Contest Calender 2003

January	18-20	ARRL VHF Sweepstakes
February	8-9	All Digital Mode VHF Contest
June	14-16	ARRL VHF QSO Party
July	19-20	CQ WW VHF Contest
August	2-3	ARRL UHF Contest
September	13-15	ARRL VHF QSO Party

SWOT Net Announcements and News

The Jim Kennedy, W5SSG has announced that he will no longer be the NCS for the **Southwest Oklahoma SWOT Net**. According to him, Wade Norris K5WPN in Duncan, Oklahoma EM14 will be the new NCS.

Repeating last month's announcement, the **Central Louisiana SWOT Net's** NCS, K5MQ Dave Teague in EM31 is running a KW+ amplifier. He signal is very good and he also receives very well. Take the time to listen for him Tuesday at 8:00PM.

From Phil Baldwin, N0PB

North Central Missouri SWOT Net

Happy New Year to all.....

I want to thank you all for being involved in making the Net a success. Just being there and checking in has been helping keep activity on the band. We have picked up many new operators on 2 Meters.

Our best DX lately has been N0KQY DM98 and N0LL EM09. N0KQY checked in on 12/9. N0LL has been very consistent on the Net also. Thanks to them for looking this way.

In case you have lost them or never had them, following are some of the beacons I listen to frequently. There are of course many others but, either I don't have good recent info or can't hear them consistently.

Call	Grid	Freq	Distance from Me	Comments
N8PUM/b	EN65bx	144.279.0 cw	491mi.	only hear this one when band is up
K0UO/b	EM07sa	144.279.7 cw	400mi.	hear it 90% of the time
WA9HCZ/b	EN43ju	144.290.0 cw	366mi.	hear it 90%
N0LL/b	EM09ow	144.294.4 cw	354mi.	hear it 80%
WD9BGA/b	EN53ba	144.298.9 cw	264 mi.	100% usually S2-3

The frequencies above all in CW mode on my FT-847 and frequencies were checked in the last few days. Many of the beacons have some frequency drift due to temperature changes. I would be interested in any beacon information. Would like recent info (i.e., you have heard it in last few days) exact frequency, grid (6 digit) and callsign.

Also one further note, if anyone would like a list of the stations that have checked into the net this last year let me know. I will be going through and updating my database very soon. If you want the list I will e-mail it to you when I get done.

Please remember to check in every Monday 8 P.M. local (02:00 UTC) on 144.250 USB. Early check in is at 7:45 P.M. We look to southwest early for those who can't be there at regular check in time, then rotate clockwise to the south. Regular check in is at 8 P.M., beginning south and going counterclockwise. East is by 8:15, North 8:30, West 8:45 and return South at 9:00.

Please give call, name, grid and SWOT number each time you check in to help out the net control. N0PB EM39wo calls the net the 1st and 2nd Monday of the month. KB0PE EM48tr calls the net the 3rd and 4th Monday of the month. N0PB EM39wo calls any 5th Monday of the month.

SWOT Net Reports

Here are the net reports for December and January. The first figure listed for each date is the number of check-ins and the second is the number of grids.

Northern California (Sunday)

Month of December:

A total of 125 different stations checked in

A total of 18 different Grids

33 Stations checked in once

21 Stations checked in twice

19 Stations checked in three times

23 Stations checked in four times

29 Stations checked in five times

Central Louisiana (Tuesday)

12/07/02...13/12 12/24/02...No Net

12/31/02...No Net 01/01/03... 6/6

01/14/02...12/09

Northern Missouri (Monday)

12/02/02...25/13 12/09/02...29/12

12/16/02...17/12 12/23/02...9/7

12/30/02...16/10

North Texas (Wednesday)

12/18/02...28/15 12/25/02...No Net

01/01/03...16/8 01/08/03...25/17

SW Oklahoma (Thursday)

No Reports

East Texas (Saturday)

12/21/02...9/6 From EM12 12/28/02...10/4

01/04/03...16/7 01/11/03...16/7

SIDEWINDERS ON TWO” ENROLLMENT OR RENEWAL FORM

NOTE: Though your membership and number are good for life you must renew annually to receive the newsletter and stay on the active list.

Enclosed find check/MO. to: New member---\$12.00 _____ Renewal----\$12.00 _____

Howard Hallman WD5DJT, Sec.Treas.

3230 Springfield Lancaster, TX 75134-1214

New Member. I have worked the following members:

Call: _____ SWOT No. _____ Call: _____ SWOT No. _____

Renewing: My SWOT No. is _____

Name: _____ Call _____ Grid Square _____

Street address _____

City _____ State _____ Zip Code _____

Telephone Nos. _____ E-mail _____

SWOT NETS

Day	Local Time	Area	Net	Frequency	Net Control Station
SUN	8:30A	TUCSON AZ	ARIZONA	144.250	N7SQN AL
SUN	8:00P	VACAVILLE CA	NORTHERN CALIFORNIA	144.250	W6OMF LARRY
SUN	9:30P	HOLLAND MI	MI SWAM	144.155	K8NFT
MON	7:30P	ALBUQUERQUE	NEW MEXICO	144.200	N5XZM BOBBY
MON	8:00P	COLORADO	ROCKY MT. VHF +	144.220	N0VSB W6OAL N0POH
MON	8:00P	N. CENTRAL MO.	N. CENTRAL MO.	144.250	N0PB PHIL KB0PE DAVE
MON	8:00P	SANDUSKY	E. MICHIGAN VHF	144.250	W8IDT BART
TUE	8:00P	CA.NO CTYS	NORCAL	144.250	KF6BXH BILL
TUE	8:00P	EM31 LA.	CENTRAL LOUISIANA	144.250	K5MQ DAVE
WED	8:00P	IA-MO-IL	TRI STATE	144.250	WZ9D N9CXO
WED	9:00P	NO TEXAS	NORTH TEXAS	144.250	W5FKN BOB
THU	8:00P	CA SO CTYS	NORCAL	144.250	KA6CHJ PAUL
THU	7:30P	DUNCAN OK	SOUTHWEST OKLAHOMA	144.250	K5WPN WADE
THU	9:00P	TENNESSE	UPPER CUMBERLAND	144.225	N2BR BOBBY
SAT	7:00A	EAST TEXAS	PINEYWOODS	144.250	K5LOW DON