

## Chairman's Corner

### The Chairman's Corner

By Jimmy Johnson KD5ZVE

Well it has been very busy for every one involved with running SWOT. There is a lot of good news.



We are almost finished with the incorporation of the club and when it is complete I will post all of the information. We have added a new net in the Chicago area on Sunday at 1900 local (7pm) on 144.250. Tom, K9TMS is the net control. And we are working to get a net started out of Laredo, Tx. Soon we will have a new member certificate. JD, N0IRS (SWOT #3507) of the Kansas City Grid Bandits has graciously volunteered to design the certificate. Also, anyone who knew W5RCI, Rex; JD has put together a CD with Rex's achievements in Ham radio. You can go to the Grid Bandits web page (<http://www.kcvhfgribandits.com>) for the information. While you are at JD's web site, you might want to look at the new

line of linear amplifiers from Europe. They were first shown at the Dayton Hamfest. Speaking of hamfests, we have several coming up in my area. This month- July 24&25 - Oklahoma City, Aug.28&29 in Joplin Mo. and September 11&12 on the "mountain" the Queen Wilhelmina Hamfest.

Also if there is anyone that has an event they would like to have mentioned in the newsletter or on the web site, send the information to ether me- [kd5zve@swotrc.net](mailto:kd5zve@swotrc.net) or Jim KM5PO at [km5po@swotrc.net](mailto:km5po@swotrc.net). Now before I take up a whole page with my rantings I will say 73's.

Jimmy KD5ZVE SWOT #3458

NEW SWOT NET!! - The Northern Illinois SWOT net now meets at 7pm Sundays and is called by Tom, K9TMS. Tom had 10 check ins on the first net (July 5th). If you're in this area of the country, please support this net with a regular check in.



### June Sacramento Brunch - Larry, W6OMF

We had a great June brunch here in Sacramento, CA. Twenty three showed up with gossip, for sale stuff and the hungers. We thank you for coming the extra mile and having fun with the group. Thanks Greg for programming some 900 radios. All in all a good time!

Some great people donated goodies for door prizes and we really appreciate their efforts.

KC6ZWT, Norm put in an ARRL book, and two 40 packs of AA batteries, WA6CAX, Bill SWOT #3400 put in a 900 MHz mobile antenna and coax, Sue SWOT #162 and I SWOT #155 threw in a Pen light, multitool, coax

jumper, and 100' of 550 cord.

WINNERS!!!!

ARRL book-WA6KTK, Steve, SWOT #3476

40 Pack AA Batteries-KM6QJ, Travis, SWOT #3330

40 Pack AA Batteries-WB6NGK, Pete

900 MHz Antenna-KC6ZWT, Norm

Pen Light-W6HMB, Tom

Multitool-N6ORB, Dave, SWOT #3506

Coax Jumper-W6JND, Janet, SWOT #3396

100' 550 Cord-WA6ZKY, Gordy, SWOT #3397

Looking forward to the Labor Day weekend SWAP at the Runt Ranch. Looks like the 5<sup>th</sup> of September and we'll start at 0800. For the Campers that come the night before, let us know, as Sue is working on the menu and will need a head count. We are excited about the fun to be had.

73 Larry and Sue

## New work for old reliable.

From Bill, W5GVE, SWOT #144 comes news of his resurrected parallel wire dish which he has remodeled for High Definition TV reception. The pictures show the construction of the feed apparatus and on the air performance is good says Bill with HD TV signals out of Houston and San Antonio commonplace into his QTH near Cedar Creek, Texas (East of Austin). Bill says when tropo conditions get enhanced to the south he can pull in over 55 stations including Corpus Christi, Harlingen, and XERV out of Reynosa. Good job Bill on putting your ham skills to work! Also of note for the homebrewers out there is the great article with theory and construction details for "cheap" HDTV designs at Kent Britain's website: <http://www.wa5vjb.com/references/CheapYagi4HDTV.pdf>



Montgomery-Ward parallel wire dish as seen from the ground. Originally selling for about 25 bucks in the old days, this antenna was used on 1296 for years and now serves as an HD TV array.



Closeup of dish feed. 1/2" dia. hobby brass, total length 9", f=18" from dish surface, midway between fat dipole and 10"x3" mesh reflector of 1/2" hardware cloth. Direct 75 Ohm feed w/o balun. Copper braid RG-6 (in order to solder).

## New tools for the 2 meter operator

- from Jim, KM5PO

The 2 meter Es season is upon us right now, the propagation mode known as Sporadic E. This is the time of year when the maximum usable frequency (MUF) can reach and exceed 144 MHz therefore reflecting our 2 meter signals and creating new DX opportunities. Once you've heard these distant signals arriving at your antenna, you will likely never be the same again. But 2 meter Es are all about being at the right place at the right time. There's a lot of interesting discussion about what causes this phenomenon with no lack of opinions and a generous amount of facts<sup>1</sup>. But for the seasoned DX'er, it boils down to staying alert, using the information you can obtain, and making noise with what you have in the way of equipment.

Some time ago we brought you the news of G7RAU's LiveMUF<sup>2</sup> with a 3 part SWOT bulletin series of how to use this valuable tool in determining VHF Es propagation potential. Now a new game is in town. DX Sherlock from Gabriel Sampol, EA6VQ (<http://www.vhfdx.net>) reaches new levels of performance not seen before. This new website and its underlying programs and database are making the job of spotting a 144 MHz Es event about as easy as it can get. The Es MUF page (Figure 1) reloads data every 3 minutes and displays a typical grid map indicating where Es reflections are occurring along with a color coded number that represents the Maximum Usable Frequency at that spot. This map can be animated (the animation link is directly below the map) which will go back for 30 minutes and replay what took place. The screen shots captured on the next page were obtained a few weeks ago during a Sporadic

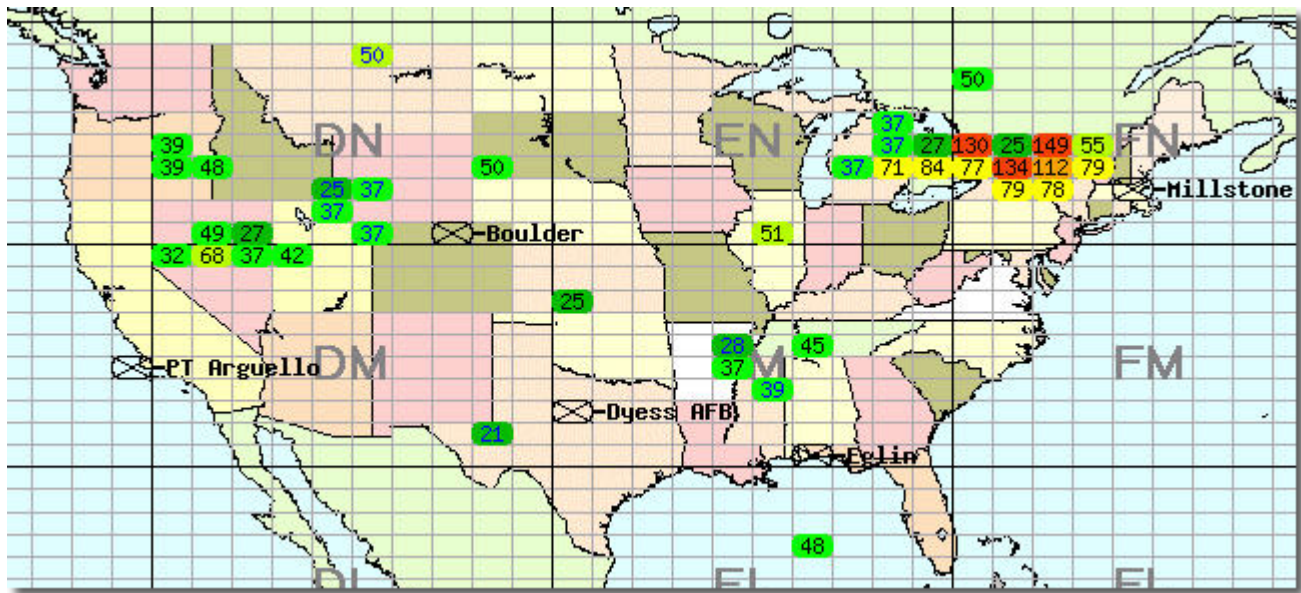


Figure 1. DX Sherlock Es MUF map.

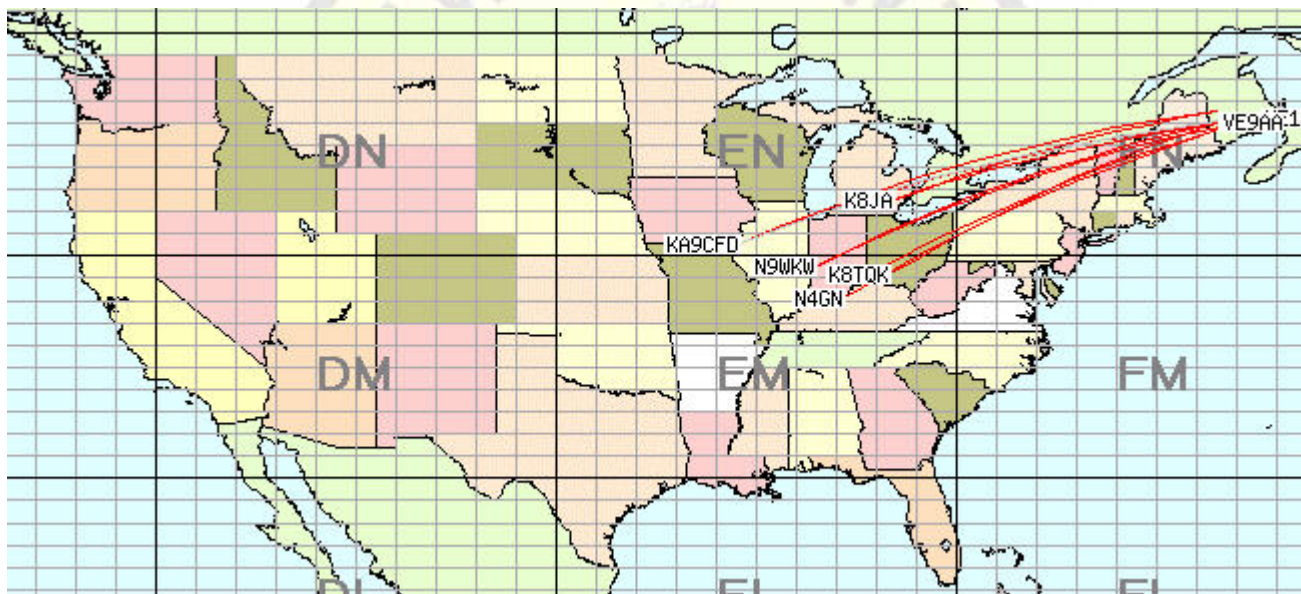


Figure 2. 144 MHz contacts made during Sporadic Es opening.

E opening in North America late in the afternoon. At the time of the screen grab, the MUF was identified as 149 MHz over FN24. This reflection area set up conditions for 144 MHz contacts on an east-west path between a number of quick thinking operators as shown in the next graphic (Figure 2). Here, the DX Sherlock program has mapped the contacts as they were made by taking the DX spots entered by the operators (from the DX-Cluster or the WSPR networks). From this map with callsigns, we can see that 5 United States hams worked 2 Canadian stations. Herein lies the method. For the computer program to work, it must be able to receive and understand the DX spot data. If operators making contacts do not enter the DX spotting info or enter it incorrectly, the

program cannot do it's job. There are many ways to get your information into the DX-Cluster but if you're going to be tracking the DX Sherlock Es MUF page, why not use the input screen provided on the same page? (see figure 3). Simply indicate the propagation method and fill in the blanks as shown.

DX Sherlock uses data for any frequency above 28 MHz. This includes the FM broadcast band (88-108 MHz) and VOR aircraft nav band (approx. 120 MHz). [Apparently, with respect to North America, much of the above 54 MHz data is missing because there are observed abruptly rising MUF conditions - Editor's note.] Much of the day to day calculation is derived from the large quantity of 50 MHz spotting data

simply because Es are commonplace at six meters and the MUF can be calculated from just one accurate spot. In addition to the DX-Cluster and WSPR networks data, direct feeds from several Ionosondes stations are sampled. Ionosondes, used extensively by the military, are transmitter/receiver pairs that transmit a swept frequency upward into the ionosphere and based on the characteristics of the received signal, the MUF

(among other properties) can be determined. These stations are shown in Figure 1

with a name label (see "Boulder" in Colorado) and an "X". The "X" indicates that DX Sherlock has not heard from this Ionosonde for 30 minutes and although all of the U.S. stations appear with "X"s in Figure 1, oftentimes the Ionosonde data has been observed to be the only data on the map (particularly during early morning hours).

Browsing through the DX Sherlock website, you will find other useful tools including:

Animated maps of prior Es openings <http://www.vhfdx.net/esmapsna.html> These animated maps not only show the reflection spots calculated, but also the paths of reported contacts.

DX Spot QSO database <http://www.vhfdx.net/spots/>

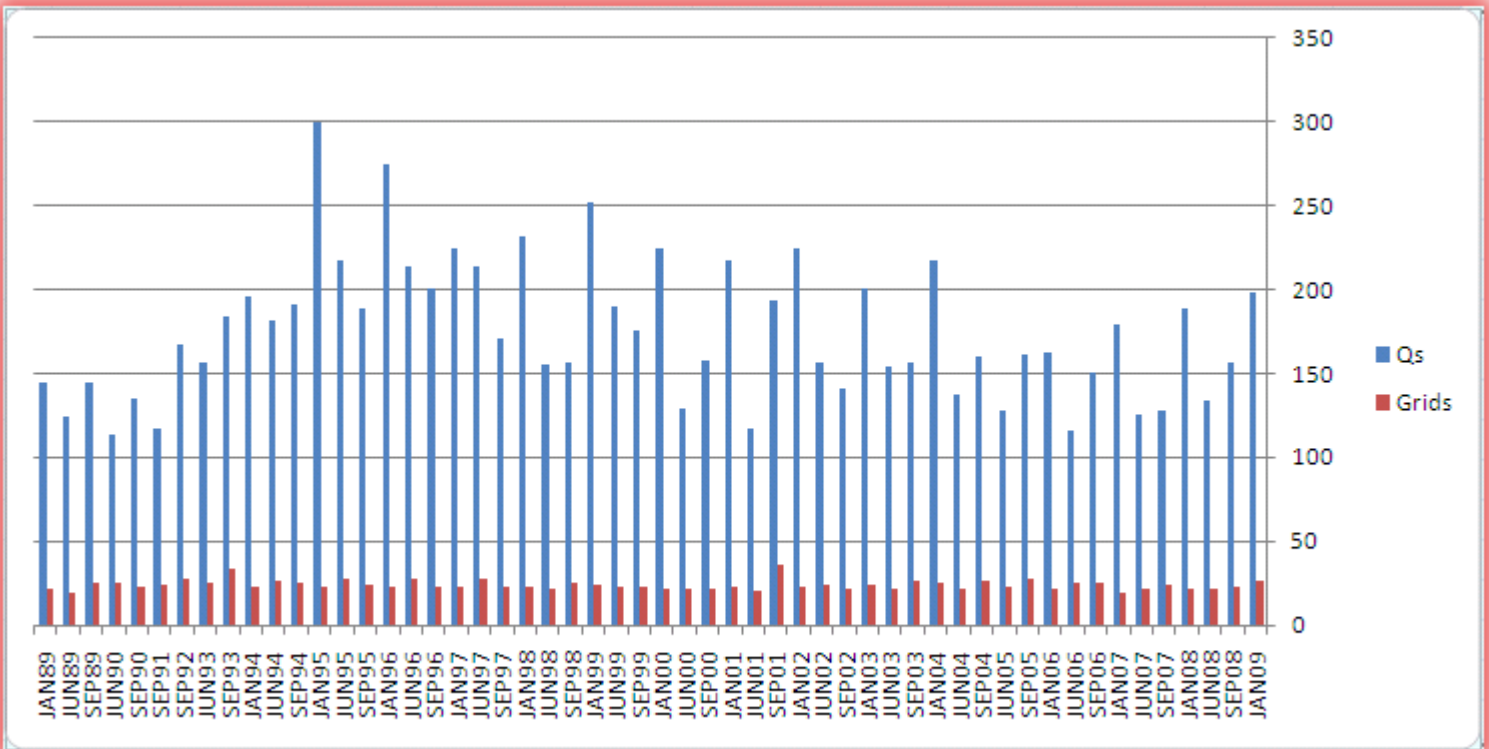
Can be searched to find specific data for individual stations, bands, etc.

Figure 3. Formatted spot entry on the DX Sherlock page.

Good luck and good DX!

1. See a reprint of the two part series "Sporadic E—A Mystery Solved?" from QST October & November 1997 by David Whitehead, one of the world's leading ionospheric scientists. The reprints are available on the ARRL website for members only: <http://www.arrl.org/tis/info/propagation.html>

2. Part 1: July/Aug 2006 SWOT Bulletin  
 Part 2: Sept/Oct 2006 SWOT Bulletin  
 Part 3: Mar/Apr 2006 SWOT Bulletin



More from WB2CUT, Richard Kaplan of Metuchen, New Jersey. This graph depicts Richard's achievements over the past 20 years of two meters contesting. Generally, he attended the January, June and September ARRL VHF contest each year. If you add up all his contacts over the contesting years you have over 9000 qso's! Richard has been active on 144 MHz since March 1972 and joined SWOT in 1976 obtaining SWOT #90.

## SWOT Net Reports

Here are the net reports for Spring 2009

### Northern California W6OMF (Sunday)

May:

Week 1 - 64 check ins  
Week 2 - 51 check ins  
Week 3 - 58 check ins  
Week 4 - 57 check ins  
Week 5 - 63 check ins

20 members checked in once  
20 checked in twice  
9 checked in 3 times  
19 checked in 4 times and  
26 checked in all 5 times  
12 grids in 3 states

June:

Week 1 - 71 check ins  
Week 2 - 48 check ins  
Week 3 - 40 check ins  
Week 4 - 53 check ins

19 checked in once  
25 checked in twice  
21 checked in 3 times  
18 checked in all 4 times  
11 grids

### Northeast Missouri NOPB (Monday 8pm)

Date Check-ins/Grids/  
States/SWOT

05/04 19 - 12 - 06 - 03  
05/11 26 - 11 - 08 - 04  
05/18 30 - 15 - 09 - 07  
05/25 16 - 11 - 05 - 03  
  
06/01 22 - 11 - 07 - 03  
06/08 23 - 13 - 05 - 04  
06/15 26 - 13 - 06 - 04  
06/22 23 - 17 - 07 - 05  
06/29 15 - 17 - 07 - 04

### North Texas W5FKN (KM5PO sub) (Wednesday 9pm)

Date Check-ins/Grids/SWOT/  
States

04/01 14 - 10 - 08 - 02  
04/08 29 - 15 - 13 - 04  
04/15 No net  
04/22 27 - 14 - 11 - 03  
04/29 No net

05/06 25 - 18 - 14 - 04  
05/13 24 - 15 - 11 - 04  
05/20 No net  
05/27 26 - 15 - 12 - 04

06/03 20 - 13 - 09 - 02  
06/010 No net  
06/17 No net  
06/24 24 - 15 - 12 - 04

### Southeast Ohio AB8XG (KD8DJE Sub) (Tuesday 8pm)

Date CheckIns/States/Grids/  
SWOT

04/07 18 - 02 - 03 - 06  
04/14 21 - 03 - 04 - 05  
04/21 16 - 02 - 03 - 06  
04/28 15 - 02 - 03 - 06

05/05 20 - 03 - 03 - 07  
05/12 15 - 02 - 02 - 07  
05/19 13 - 02 - 02 - 07  
05/26 14 - 02 - 03 - 07

06/02 12 - 02 - 02 - 05  
06/09 15 - 03 - 04 - 05  
06/16 18 - 02 - 03 - 08  
06/23 13 - 03 - 04 - 05  
06/30 15 - 02 - 03 - 05

### E. Oklahoma KD5ZVE (Thursday 8pm)

Date CheckIns/States/  
SWOT

04/09 13 - 09 - 03 - 08  
04/16 08 - 05 - 02 - 06  
04/23 12 - 07 - 03 - 10  
04/30 13 - 08 - 03 - 08

05/07 14 - 07 - 03 - 11  
05/14 16 - 09 - 04 - 13  
05/21 12 - 07 - 04 - 08  
05/28 14 - 08 - 03 - 10

06/04 16 - 11 - 03 - 12

06/11 11 - 07 - 04 - 06  
06/18 18 - 09 - 04 - 14  
06/25 15 - 10 - 04 - 08

### Daytona Beach W2RAC/W1LVL (Wednesday 8pm)

Date Check-ins

06/03 6 check ins  
06/10 2 check ins  
06/17 3 check ins  
06/24 4 check ins  
07/01 7 check ins

### Northern Illinois K9TMS (Sunday 7pm)

Date Check-ins

07/05 10 check ins

### E. Texas Piney Woods KM5PO (K5LOW sub) (Saturday 7am)

Date Check-ins/States/  
SWOT

05/02 19 - 11 - 12 - 04  
05/09 18 - 10 - 09 - 04  
05/16 no net  
05/23 16 - 07 - 09 - 04  
05/30 22 - 10 - 12 - 05

06/06 20 - 09 - 11 - 04  
06/13 16 - 08 - 09 - 04  
06/20 22 - 11 - 13 - 05  
06/27 19 - 10 - 10 - 04

### Southern California WB6NOA (Sunday 7:30pm/144.240)

#### Summer 2009 Bulletin

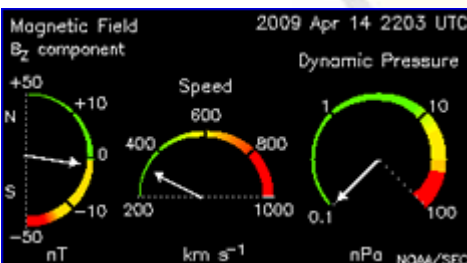
This year we will publish this one edition of the SWOT bulletin to cover May, June, July and August. We will resume the normal schedule with the Sept-Oct issue. Circumstances beyond our control caused a long delay in this edition of the newsletter (Complete failure of the laptop machine which held the bulletin construction tools on April 28th). - KM5PO, Editor

## Event and Contest Calendar:

Aug 2-3 ARRL UHF Contest  
 Aug 16-17 ARRL 10 GHz and Up Contest  
 Sep 13-15 ARRL September VHF QSO Party  
 Sep 20-21 ARRL 10 GHz and Up Contest

### What to expect July-Oct Meteors:

Delta Aquirids July 28/29, 25 zHR  
Alpha Capricornids Aug 1,2,6-14 zHR  
Southern Iota Aquarids Aug 6,7, 7-8 zHR  
Perseids Aug 12, 105 zHR  
Northern Iota Aquarids Aug 25, 5-10 zHR  
Arietids Mid August - Sept 18, peak Sept 1, 15zHR  
Pisceans Sept 9-18, peak Sept 10, 6zHR  
Sextanids Sept 19 - Oct 8, peak Sept 29, 5zHR  
Arietids S Oct 5 - Oct 15, peak Oct 11, 5zHR  
Orionids Oct 12 - Oct 9, peak Oct 22, 25 zHR



Real time Magnetic Field dials (Aurora)

SWOT Bank account balance [06/30/09]  
 \$3238.30  
 Howard Hallman, SWOT Secretary/  
 Treasurer



Click Here

Full Meteors calendar:

[W8WN](#)  
[Gary Kronk](#)

### Aurora:

Watch:  
<http://umtof.umd.edu/pm/latest2day.gif>

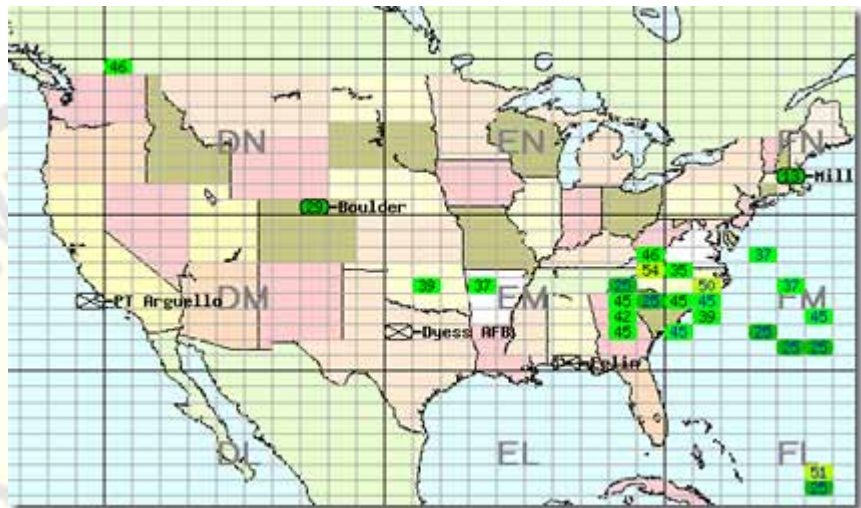
### Tropo:

Always keep an eye on:  
 the [Hepburn Forecast](#).

the [APRS Real time VHF propagation map](#).  
 the [Presence of radar reflectivity \(false echos\) HERE](#)

the [Green Page \(144 Mhz Propagation Logger\)](#)  
 the [Surface Map](#) (there are many choices)

[www.spaceweather.com](http://www.spaceweather.com)



Click on the map above to access the DX-Sherlock Es MUF map.

SWOT#	Call	Name	City	State	Grid
2904	N5LJL	Bob	Talala	OK	EM26
3358	KF6PFT	Bob	San Mateo	CA	CM87
3520	KI6TVZ	Shirley	Folsom	CA	CM98
1332	W8WVG	William	Athens	OH	EM89
1746	W0BCG	David	Frederickburg	VA	FM18
2013	WD4KTY	Jim	Wedowee	AL	EM73
3111	WA5BEG	Randon	Arlington	TX	EM12
3308	KE6QR	Gary	Vallejo	CA	CM88
3323	K6ALE	Richard	Magalia	CA	CM97
3358	KF6PFT	Bob	San Mateo	CA	CM87
3411	K6UE	Francis	Alameda	CA	CM87
416	K6ERF	Russ	Martinez	CA	CM87
3350	N5SVK	Don	San Angelo	TX	DM91
3569	WB5WKO	David	Ft Worth	TX	EM12
3570	KB4SOG	Terry	Lawrenceburg	KY	EM77
3571	KD0FEI	Kim	Bonner Springs	KS	EM29
3572	AC8W	Stan	Marysville	MI	EN82
3573	N7KPV	Nick	Atoka	OK	EM14
3574	N0WDH	William	Bennington	OK	EM13
3575	W6BY	Brian	Alamo	CA	CM87

From Howard Hallman, SWOT Secretary.  
 Membership updates and new members

## SWOT and Selected 2-Meter Nets

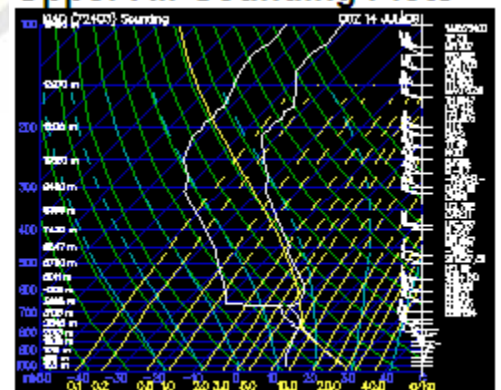
Help improve our listing of nets! If you find errors or omissions or know of other two meter nets being conducted, please send email to either the bulletin editor: [km5po@arrl.net](mailto:km5po@arrl.net) or the SWOT Net Manager- Jimmy Johnson, [jjohn357@swbell.net](mailto:jjohn357@swbell.net)

Day	Local Time	Area	Net	Frequency	Net Control Station
SUN	8:00 pm	Vacaville, CA	NORCAL	144.250	W6OMF Larry
SUN	7:30 pm	Costa Mesa, CA	South California	144.240	WB6NOA Gordon
SUN	7:00 pm	Chicago, IL	North Illinois	144.250	K9TMS - Tom
SUN	8:30 am	Tucson, AZ	Arizona	144.250	N7SQN Al
SUN	8:30 pm	Zebulon, NC		144.220	N1GMV
SUN	9:30 pm	Holland, MI	Michagan SWAM	144.155	K8NFT
MON	7:30 pm	Albuquerque, NM	New Mexico	144.200	N5XZM Bobby
MON	8:00 pm	Colorado	Rocky Mt. VHF +	144.220	N0VSB W6OAL
MON	8:00 pm	Midwestern United States	Northeast Missouri SWOT	144.250	N0PB Phil
MON	9:00 pm	Tidewater, VA		144.230	
TUE	8:00 pm	Bay Area, North California, West Nevada	Northern California SWOT	144.250	KG6WLV John
WED	8:00 pm	Florida	Daytona Beach SWOT	144.250	W2RAC Richard W1LVL George
WED	9:00 pm	Texas, Okla, Ark, Louisiana	North Texas SWOT	144.250	W5FKN Bob
THU	8:00 pm	Bay Area, North California, West Nevada	Northern California SWOT	144.250	W6DWI Robin
THU	8:00 pm	Oklahoma, Texas, Ark, Missouri, Kansas	Eastern Oklahoma SWOT	144.250	KD5ZVE Jimmy
THU	8:00 pm	Greater Ohio area	Southeast Ohio SWOT	144.250	AB8XG Kenny KD8DJE Russell
SAT	7:00 am	Texas, Okla, Ark, Louisiana	Piney Woods SWOT	144.250	KM5PO Jim



Accurately detect tropo by observing "false" echoes on National Weather Service maps such as this one which you can link to at [http://radar.weather.gov/Conus/RadarImg/latest\\_Small.gif](http://radar.weather.gov/Conus/RadarImg/latest_Small.gif)  
Watch for light blue and gray areas turning darker.

### Upper Air Sounding Plots



A new propagation tool has been added to the SWOT website: <http://www.swotrc.net>

## 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: **Howard Hallman WD5DJT, Sec.Treas.**

**NOTE: do not make checks out to SWOT. Make checks out to Howard Hallman**

**3230 Springfield Lancaster, TX  
75134-1214**

**New member:**  \$6 - receive bulletin by email  
 \$12 - receive bulletin by US post office

I have worked the following SWOT members:

Call: \_\_\_\_\_ SWOT No. \_\_\_\_\_ Call: \_\_\_\_\_ SWOT No. \_\_\_\_\_

**Renewing:**  \$6 - receive bulletin by email  
 \$12 - receive bulletin by US post office

My SWOT No. is \_\_\_\_\_

Name: \_\_\_\_\_ Call \_\_\_\_\_ Grid Square \_\_\_\_\_

Street address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Telephone Nos. \_\_\_\_\_

Optional: I check into the following nets: \_\_\_\_\_

E-mail \_\_\_\_\_

Receive Newsletter By Email: YES \_\_\_\_\_ NO \_\_\_\_\_

Note: Send all forms to the Secretary-Treasurer at top of this form.

### SECRETARY - TREASURER :

Howard Hallman/WD5DJT  
3230 Springfield Ave.  
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Webpage: <http://home.swbell.net/wd5dj>

### CHAIRMAN & SWOT NET MANAGER :

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### BULLETIN EDITOR :

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Phone: (817)-563-2720  
Webpage: <http://www.km5po.net>

### SWOT WEBMASTER ([www.swotrc.net](http://www.swotrc.net))

Tom Childers/N5GE  
Email: [n5ge@n5ge.com](mailto:n5ge@n5ge.com)

### 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 Howard Hallman 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.

### MERCHANDISE :

Decals and listings available for \$1.00 each for shipping and handling from the Secretary/Treasurer.

SWOT Patches are available at a price of \$4.00 Each + \$.50 for mailing

Badges are available from "The Sign Man", Rick Pourciau NV5A, [http://](http://www.thesignman.com/menu.html)

[www.thesignman.com/menu.html](http://www.thesignman.com/menu.html)



**Side Winders on Two Radio Club S.W.O.T.**  
Promoting Weak Signal Operation since 1976

