

Chairman's Corner

By Art Jackson KA5DWI

Lazy Hazy Days of Summer

For many of us that enjoy operating weak signal, this is the best time of the year to eyeball a few of our counterparts in the

hobby, work out their new rigs, make sure the rotors, antennas and feedlines still function, and then in the process acquire a few

new grids with the best propagation of the year. Oh well I should not complain, one out of four is not too bad.

My pursuit of a degree at 53 is still taking an enormous amount of my time. This summer is no exception. I am attempting to finish out my foreign language requirement at our community college and the class is between 8 p.m. to 10 p.m. four nights a week through the summer. Add to that, is an instructor that is a slave driver (you are suppose to learn something). The combination results in

very little time to spend on the radios and let alone have any kind of a social life. It will improve in due time.. I hope.

HamCom 2006 - Plano, Texas

Once again, SWOT had a table inside the Exhibition area of HamCom's new facility at the Plano Centre. I enjoyed visiting with all of you that made your way over to the table. This is the one annual events that we all get together. John-KM5ES, Howard-WD5DJT, Jim-KM5PO, and yours truly were all available to meet and greet a good number of members. As always, we get a number of renewals and a few new members. I thank all of you who dropped by to say hi and subscribe for another year. A list of the sign-ins will appear in this bulletin.

Now for the bad news about HamCom. Despite what you are seeing on a few websites (the HamCom site in particular), the new facilities were quite inadequate. One problem was a lack of signage. It was almost next to impossible to find anything. I heard some say they never found the outdoor flea market.

The major problem was parking. Despite the complaints about Arlington (paying for parking being

the main one), I would have gladly put down the cash to

"I heard some say they never found the outdoor flea market.."

have at least not put up with the hassles of parking I had on Saturday. The talk-in group on the local repeater "did not have a clue" to what was going on. The overflow parking facility was more than a mile away from the site, plus had poor transportation back to Plano Centre. Due to my college course commitments, I did not have much time and had to prematurely leave on Saturday. Add to that, little if any time for the June VHF contest, and you might say it left me in one sour mood. Don't worry, I'll get over it. I wanted to join Jim-KM5PO for his multi-multi operation for the contest and just couldn't break away.

Still, I want to thank Jim McMasters-KM5PO, for putting together a Friday dinner gathering at a nearby Tex-Mex establishment for the WSJT Group. A few of us SWOT folks got to tag along and enjoy it as well. It is always good to chat and share a few stories.

I hope the HamCom committee will get their act together and work out this year's inadequacies. This has always been a great event for all of us to get together. It would be disappointing to ever have that end.



I have many fond memories of HamComs past and would like that to continue.

Propagation???? Another poor late Spring for 2 Meter sporadic Es.

We are in the bottom of the solar cycle now. Usually we see great Es openings here on 2 Meters while that occurs. I have no idea what we are doing wrong, but for the second year in a row, the number of openings are lacking.

On the other hand, 6 Meters has been outstanding, most notably an opening to Europe, Africa, and Asia on the same day. Still, very few opportunities on 2 Meters have occurred. Europe has had a few openings, but nothing compared to past years. We still have a few weeks left

and with some luck we will have a few chances. I have seen 2 Meter Es openings as late as August 22, but very few exist after August 1.

Perseids Hot-Rock Shootout

I invite you all to participate in this upcoming event. Its purpose is to promote 2 Meter meteor scatter by whatever method you wish. The rules are simple and with limited restrictions. We want you to have fun and enjoy one of the best meteor showers of the year. This is a great opportunity to pick up a few new grids. Please feel free to overload John-KM5ES with your logs. He will appreciate it.

SWOT Homepage

You will notice a few changes to the website. One is a new SWOT logo, thanks to a work associate of Jim, KM5PO. Also, we have added a Forum page to the website. We ask you all to join it and contribute when you can. As for the Yahoo Group page, it still is there. We continue to acquire new members, and participation is welcomed. Still, the SWOT Homepage is the site for important 2-Meter links, Newsletters, and current news. We want you to visit that site as often as possible.

Have a great summer and generate some 2-Meter RF to get that E-layer warmed up.

73's
Art Jackson KA5DWI
Chairman

VUCC Basic Operating Area Change

VUCC basic operating area expanded for 50 through 1296 MHz: The ARRL Membership Services Department has announced an increase in the size of the basic operating area for VUCC contacts made between 50 MHz and 1296 MHz. Effective immediately VUCC rules allow stations to submit confirmations for contacts made from different locations, provided no two locations are more than 200 km (124 miles) apart. The VUCC operating area for SHF operation remains unchanged. The change results from a



VHF/UHF Century Club Award Rules

recommendation of an ad hoc VHF/UHF Study Committee, appointed by the then-Membership Services Committee, chaired by ARRL New England Division Director Tom Frenaye, K1KI. The ARRL Awards Committee recently added its approval to the change.

6. For VUCC awards on 50 through 1296 MHz and Satellite, all contacts must be made from locations no more than 200km apart. For SHF awards, contacts must be made from a single location, defined as within a 300-meter diameter circle.

SWOT member Larry Hogue, W6OMF points out that the rule previously stated that "a contact counted when it was within the GRID or within 50 miles", this rule, which seemed to change silently in April of this year, has considerable implication. Larry points out that rover operations during contests may prove to be particularly interesting."Think about it... say a rover during a contest snags a new Grid and is down the road. They now might want to consider checking how far down the road..." says Larry. <http://www.arrl.org/awards/vucc/VUCCRULE1a.pdf>

Our Home on the Internet

by John, KM5ES

Several years ago we started with a website on the internet which was simple and "plain jane". It has grown by leaps and

bounds with more stuff usually added monthly. It provides a central place for members and non members to see what is going on in the world

of weak signal 2 meter ssb and the digital modes.

Before the website was established the newsletter was our only outlet to the membership. Then in 2001 we started the S.W.O.T. Yahoo group. S.W.O.T. Yahoo has grown to 195 members and provides weekly club announcements of nets and some club news but our flagship is <http://www.swotrc.net>.

When I first started the website it had a few links and some club information and so forth. Now the website has live information for propagation reports thru the links. The past couple of months has given us more links, realtime

solar, aurora, and eskip indicators which members can check.

Also we have placed a gateway page in which members with a slow internet speed can use the

joined it please do. You will like it.

Also open to the general ham public is our past newsletter. This gives non-members of S.W.O.T. an idea of what our organization is all about.



text only website or they can go to the Graphic Enhanced pages.

In May of this year we added a Forum which is open to the general amateur public which with joining with only your callsign gives you the opportunity to post anything pertaining to SWOT, Propagation, reviews on radios, buy, sale, swap and trade and so forth. It is a moderated forum and watched closely by the administrators. So far we have 42 members of the SWOT Forum. I hope it continues to grow.

The forum has alot of features that I know will be instrumental in its growth. If you have not

Available to the paid membership by using a username and password members can go online and read the present newsletter. If you would like to use this feature contact me at johnkm5es@gmail.com and send me your name and S.W.O.T. number and when you sent in your dues and we will fix you up.

We are blessed to have the S.W.O.T. website and thanks to David N5ITO for providing the webspace for it and the hard work of keeping it online. We have only had a very few outages and Davids expertise in worth a million.

Again please use the club resources, they are there for you the members. If you have any suggestions you would like to see on the website please feel free to email me at johnkm5es@gmail.com

Live MUF - Part 1 of 3

-Jim McMasters, KM5PO

One subject that is talked about a lot is E skip (es). This mode of propagation is responsible for many of the contacts made on 10 and 6 meters and most of us know it as a phenomena that seems to increase in the summer time and someone said it has something to do with sunspots. If you've ever been at a contest or field day station during the summer, then you know that things get crazy when "E skip" is alive.

In this group of articles I would like to describe *Live MUF*, a piece of software that is the latest in a series of efforts over the years to help track, analyze, and predict E skip phenomena. I will not get into the cause of this propagation which is the source of much discussion¹ but rather I would like to tell you how this software works and give you instructions on how to get it working for you.

Many of us got our first set of tools for E skip out of Emil Pocock's (W3EP) QST article² with it's MUF chart that enabled one to figure out the Maximum Usable Frequency by knowing the signal frequency and path endpoints on an existing E skip contact. So what we used to do (and still do) was listen on 6 meters for successful contacts and also ask operators what they were hearing and by tracking the path lengths and whereabouts we could see where the MUF was rising and even figure out the skip point which must be exactly in the middle of a path assuming a single reflection. It was not long until we saw DOS based computer programs that would perform the calculations necessary so long as you could feed it the required data. This meant keying the grid locators of both ends of the contact as well as the frequency of the QSO. Many were the hours that we took the calculations and mapped contacts with pencil on a grid map in order to track the E clouds and be ready with antenna headings to catch E skip on 144 Mhz!

As technology improved and the public Internet became more available, there was a union of sorts between those who were interested in E

skip prediction and the resources available in the vast DX cluster network³. Dave Edwards, G7RAU decided he was tired of drawing those lines on a map and decided to create a computer program that would calculate es MUF in realtime based on spots received from the dxcluster and map the data. His effort, started in 1999, has now resulted in the most useful, versatile software using state-of-the-art technology to help us with es predictions. I have been using this software for two years but I have found that the program can be a challenge to get up and running for some of my friends therefore I would like to show readers of this bulletin how to do it.

Before continuing let's talk about requirements. There is a web version of the program⁴ which can be used to see the accumulated spots data and a map with the contacts diagrammed. This version of the program requires an internet connection of course, and it is a quick way to see the status of things from say your cell phone (I do



Fig 1. Live MUF V7 web version displayed on a cell phone with internet connection.

this with my Treo 650-Fig 1) and it's the perfect solution if you do not care to download the main client program with all it's whistles

and bells. The web version comes in two flavors. One that will allow you to select what you want to see and how the map is centered and then another version (link is farther down the main page) that will pull up either a North American map or a Europe map. But if you want the full enchilada, then you will need the main client program. For this program, you will need the internet connection but this time you need one that is always on such as broadband or DSL. I've found it best to install the client on machines running Microsoft XP but it is possible to get it to work with all versions of Windows from Windows 98 up.

Here are the steps for installing and setting up Live MUF version 7 on an XP machine:

1. Browse to <http://g7rau.demon.co.uk/default.aspx?menu=30> and click on the LIVE MUF V7 PAGE.
2. Look for the words (in blue font) ".Net Framework Downloads" in the first couple of paragraphs on the page. If you know for sure that you already have the Microsoft .Net Framework version 2 already installed on the machine you do not need to click on these words. If you are in doubt then click on these words.
3. A page from Microsoft will come up. If .Net Framework is not installed on the machine you will see a message in red letters that says "You do not have the .NET framework installed on this computer... etc etc"
4. Simply scroll down to find the following list of downloads and click the

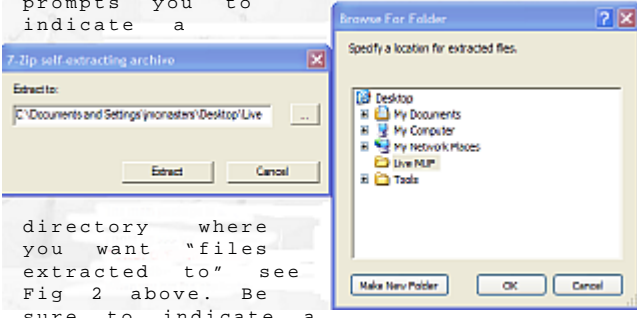
.NET Framework Version 2.0 Redistributable Package


Download the most recent update to the Microsoft .NET Framework and get everything you need to run applications developed using the .NET Framework.

- [Download x86 version](#)
- [Download x64 version](#)
- [Download IA64 version](#)

top link (Download x86 version).
5. When you click the top link, it will take you to a download page where near

the beginning you will find the actual button labeled "Download". Click this button. 6.The download will take a short time if you have a broadband connection. It took 3.5 minutes on Sunday, July 9th, with a file size of 22.4 MB and running at the rate of 185 KB/second 7.Click through the Microsoft .Net Framework 2.0 Setup wizard, accepting the End User License Agreement and so forth. 8.Once the .Net Framework install is complete you are ready to download the Live MUF client. You are 1/3rd the way done, hang in there. 9.Return to the LIVE MUF V7 PAGE or if you have closed your browser go to <http://g7rau.demon.co.uk/default.aspx?menu=30> and click on the LIVE MUF V7 PAGE. Find the link with Live_MUFV7.exe in it and click on this link. 10.After the program is downloaded, run the install. During the process you will get a window that prompts you to indicate a



directory where you want "files extracted to" see Fig 2 above. Be sure to indicate a directory where you can find your files next. In the figure I have extracted to a newly created folder named "Live MUF" on my desktop. Do not use the default directory when this process begins unless you are familiar enough with computers to know how to go find this obscure directory. 11.When you are done browsing and pointing to a folder to extract the files, click the extract button. 12.Now go to the directory where your files were extracted and you will find the icon Live_MUF.exe as shown in Fig 3. This icon is your start-up icon and double clicking it will start up the program Live MUF.  **Fig 3.**

Congratulations, you're now 2/3rd the way finished. Hang in there. 13.Double click the Live_MUF.exe icon and let's get started. 14.When the program begins for the first time, a "User Details" window is presented. Key in your callsign and your locator square in the appropriate boxes, then click the "Update" button. You may now close this window. 15.On the left side of the screen you will see a "navigation pane" where you may expand and collapse "nodes" by clicking on the "+" (plus) and "-" (minus or hyphen) next to a folder. Let's expand the "Available Windows" node by clicking on the plus sign. 16.Now expand the DXC node and then click on the Settings folder. This is where we will setup our gateway to the DXspider network so that Live MUF can go get spots that are being entered by ham operators in real time! 17.In the "DXC Settings" window, along the right side find a box named "Callsign" and key your callsign in here, then click the "Import" button. 18.The main "DXC Settings" window will now be populated (from clicking the "Import" button). I personally use the AB5K or AB5K-2 connections. You would pick only one at this time and you do this by clicking on the entry, so do this now by clicking on AB5K under the Friendly_name column. Now find and click on a checkbox labeled "Keep alive enabled?". Now click the "Update" button. 19.You may now collapse the DXC node by clicking on the minus sign next to it. When you do this, the DX CLUSTER window will pop up. On the menu bar near the top of the program you can now click on "Connect". 20.If the connection is successful, you will see some verbage in your DX CLUSTER window ending with

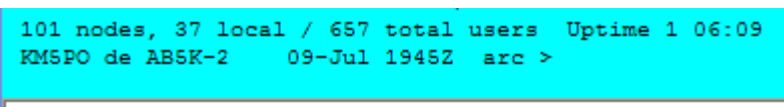


Fig 4. Server response

a statement similar to Fig. 4. Note: if the AB5K server does not seem available, then back track to the DXC Settings window and select the AB5K-2 entry and click update. 21.You will see the cursor flashing in a box. This is where you can send commands to the server. We will send a command to make the server filter out spots to show us only the ones we are interested in. Type in set/filter dxbandmode/pass vhf,uhf,mw and then press enter. The server will respond with an affirmative message. 22.Now in the left hand navigation pane expand the Mapping node, then the MUF Mapping node. Click on Settings under the MUF Mapping area. 23.In the "Centre Locator" box key your Grid Locator and in the "Recent spot limit" dropdown select 15. Now click the Save and Exit buttons. This panel will be one that you can come back to and customize over and over to make your maps look better. 24.Now simply click on the "MUF Mapping" folder itself. This will open the MUF map window and it will probably display Europe. Right click the map and select "Draw Map". 25.Congratulations, you now have the program running and as spots come in through the connection we set to the DXspider, these spots will be mapped! 26.To make our display really sweet, we need at least one more window. Expand the "MUF Data" node and then the "Average MUF" node. Click now on the Settings folder within the "Average MUF" node. 27.On the "Average MUF graph settings" window, change the "Time Scale" to 30 and the "Time Spacing" to 2. This will cause our Average MUF graph to update every 2 minutes and hold 15 updates at a time. Now click the Update button and then close the window. 28.Now click on the "Average MUF" folder itself and the Average MUF Graph will open. 29.Arrange your windows so they are easy to see and operate. I do this as in Fig. 5 (see next page of bulletin) by closing the left hand navigation pane (hover your mouse over the nav pane right hand edge until you get a double pointer then double click), and then moving / resizing the three windows accordingly. In our next installment we will explore more of the basic functions of this software as well as how to use it in actual operation.

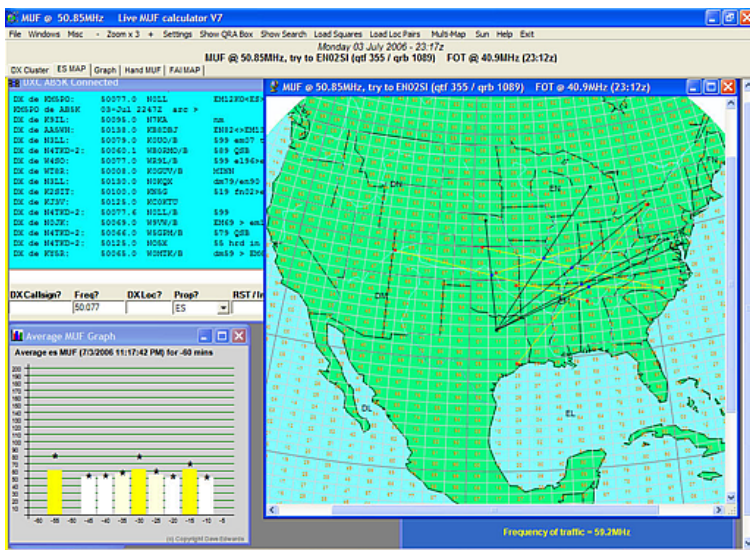


Fig 5. Windows arranged:DXC upper left, Average MUF graph lower left, MUF map of the U.S. on the right

Sacramento Calif. Brunch & Swap by Larry, W6OMF

The June 3, 2006 gathering in West Sacramento was a wonderful success. ThirtySeven showed for the brunch and SWAP... Door prizes were donated and a bit of wheeling and dealing in the Parking lot was enjoyed...



KI6ARW, #3474 won three jumpers with N connectors Donated by Greg, KJ6KO
 KG6HBY, won a Northern CA Delorme Map Donated by Larry, W6OMF
 K6WWH, won a variable attunator Donated by Greg, KJ6KO
 WA6ZKY, #3397 won a variable attunator Donated by Greg, KJ6KO
 WA6KTK, #3476 won a calendar organizer Donated by Skipp, WV6F
 K6QG, #3324 won a MFJ digital clock Donated by Larry, W6OMF

W6BO, #3395 won a full climbing harness. Donated by Travis, KM6QJ, #3330
 W6OHM, won a relay and meter (1 MA scale) Donated by Greg, KJ6KO
 WA6DAC, #3450 won a D104 MIC Donated by Greg, KJ6KO
 KE6FHN, won a bag of various connectors Donated by Greg, KJ6KO
 KG6HSI, won a Power meter Donated by Greg, KJ6KO



Notes:

- 1 <http://www.df5ai.net/Material/links.html#Top>
<http://www.df5ai.net/Material/hamlinks.html#Top>
- 2 Emil Pocock, W3EP, "Sporadic-E Propagation at VHF: A Review of Progress and Prospects," QST, April, 1988 & Beyond Line of Sight, ARRL Publication
- 3 <http://www.df5ai.net/ArticlesDL/DXC/dxcdiscuss.html>
- 4 Live MUF web version: <http://g7rau.demon.co.uk/default.aspx?menu=40>

SWOT Net Reports

Here are the net reports for May - June 2006

Northern California W6OMF (Sunday)

14 grids in May-

Week one 70 check in
Week two 74 check in
Week three 71 check in
Week four 50 check in

June report-

12 different grids
28 checkin in all 4 weeks
28 checking in for 3 weeks
24 checking in for 2 weeks
33 checking in for 1 week

Northeast Missouri N0PB

(Monday 8pm)

Date Check-ins/Grids/
States/SWOT

05/01 no net
05/08 no net/weather
05/22 20 - 14 - 5 - 6
05/29 no net/holiday
06/05
06/12
06/19
06/26

No data available

North Texas W5FKN

(Wednesday 9pm)

Date Check-ins/SWOT/
Grids/States

05/03 25 - 09 - 12 - 02
05/10 22 - 10 - 10 - 02
05/17 18 - 10 - 11 - 02
05/24 30 - 13 - 16 - 02
05/31 27 - 17 - 17 - 04
06/07 31 - 18 - 21 - 04
06/14 32 - 17 - 17 - 05
06/21 29 - 14 - 16 - 03
06/28 21 - 12 - 12 - 03

E. Oklahoma KD5ZVE & KM5ES

(Thursday 8pm)

Date Check-ins/Grids/
States

05/04 23 - 11 - 04
05/11 26 - 12 - 04
05/18 20 - 09 - 04
05/25 23 - 11 - 05
06/01 18 - 07 - 02
06/08 28 - 11 - 05
06/15 21 - 11 - 05
06/22 no net/weather
06/29 20 - 11 - 04

E. Texas Piney Woods KM5PO

(Saturday 7am)

Date Check-ins/Grids/
SWOT/States

05/06 16 - 12 - 08 - 01
05/13 20 - 13 - 10 - 03
05/20 41 - 25 - 12 - 06
05/27 20 - 14 - 09 - 03
06/03 30 - 16 - 12 - 02
06/10 13 - 10 - 07 - 02
06/17 16 - 10 - 07 - 05
06/24 20 - 12 - 06 - 03

Event and Contest

Calendar:

July 15-16 CQ World-Wide
VHF Contest
July 28-29 CSVHF
Conference, Bloomington,
MN

Aug 05-06 ARRL UHF
Contest
Aug 10-Aug 16 SWOT Hot-
Rock Shootout
Aug 19-20 ARRL 10 GHz
and Up Contest

Sept 09-11 ARRL
September VHF QSO Party
Sept 16-17 ARRL 10 GHz
and Up Contest

Dec 10-18 North American
HSMS 2006 Winter Rally

What to expect July-Aug Meteors:

Alpha Lyrids July 14, 25
zHR
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

Aurora:

Watch:

[http://umtof.umd.edu/pm/
latest2day.gif](http://umtof.umd.edu/pm/latest2day.gif)

www.spaceweather.com

Tropo:

Watch for:

1. Upper Air High Pressure systems building from Northern Mexico, the Gulf of Mexico or Southern Florida.
2. Pacific Fronts passing across the U.S. with a strong High Pressure ridge wedged between them.

E-layer propagation:

E season begins the end of April and continues until August. <http://gooddx.xs4all.nl/cgi-bin/gooddxvisitors> (list name="eskip-na-early")

Cheap Yagi revisited!



SWOT member Mike
Rodgers, KE5GBC shows off
his new Cheap Yagi!

Thank you Kent Britain, WA5VJB. Once again your cheap yagi design takes form. This time, it's a 2006 model with parts from the scrap pile and about 10 bucks of stuff from the

(Cheap Yagi continued on
page 10)

Riley Hollingsworth: "LIGHTEN UP!"

FCC Special Counsel for Enforcement Riley Hollingsworth advised those attending the FCC forum at Dayton Hamvention 2006 to try kindness instead of confrontation when

problems arise on the bands. Hollingsworth spoke May 20 to a nearly full house at Hara Arena, and for the most part he praised the

behavior of the majority of Amateur Radio operators,

especially those who volunteered in the aftermath of Hurricane Katrina last year. But, he noted, radio amateurs still could be more courteous and less inclined to fly off the handle at some perceived on-the-air offense.

"You need to lighten up and not embarrass the Amateur Radio Service," Hollingsworth advised. "All of us make mistakes, especially with the new features you have on radios today. It's very easy to make a

mistake, to be on the wrong frequency or be operating split and not know it—there's a

hundred ways to make mistakes." Hollingsworth said experience has shown him that at least 75 percent of the interference complained about is absolutely unintentional.

In Hollingsworth's view, radio amateurs all too often are hypersensitive and rude. "We have a radar going to detect offenses at all times, we assume the worst in people,



Riley Hollingsworth, K4DZH, at home in his well equipped shack, which includes a mixture of both modern and vintage gear.

we rarely give people the benefit of the doubt," he said. He joked that if there were three amateurs in a town, there would be two Amateur Radio clubs.

"And there'll be two hamfests with 20 people each, because they wouldn't dare consolidate them," he added.

Hollingsworth acknowledged that "certain problem operators" remain, but the real troublemakers are rarely the newcomers to Amateur Radio. "If there's

... if there were three amateurs in a town, there would be two Amateur Radio clubs. -Riley Hollingsworth

a downfall in Amateur Radio, it won't be caused by no-code Technicians or codeless anything else,"

he said. "It'll be caused by the microphone—no doubt in my mind." He advised his audience to ignore the troublesome operators and not give them the attention they crave by engaging them on the air.

"Now, think about it: If what you're hearing annoys you, or angers you or is stupid, use the 'stupid filter,' which is that big knob—that VFO that will take you somewhere else," he quipped. "It's the largest knob on the radio." He recommended moving to another frequency or even another band altogether.

And he goes on to other subjects.

We do take ourselves too seriously.

Q: How many hams does it take to screw in a light bulb?

A: One each to:

1. Check to see if it is within band limits, emitting spurious responses, or exceeding modulation requirements.
2. Another ham to check the first guy's equipment
3. Log it on the light band prop log
4. Check safety requirements, then install a GFCI
5. Write a new program for "Light Scatter"
6. Figure out how to put the bulb on APRS
7. Check the bulb's grid square location
8. Apply for a new DXCC country status
9. Figure out how to make a "Light Bulb Kilowatt" (try inverting a dozen 100W bulbs in a pan of water)
10. Develop a cheaper, solid state version of the LBKW using LEDs
11. Start a Light Wave QRP club
12. Put a Light Bulb in front of a Parabolic Reflector (ah yes, the Flash Light)

13. Put an LBKW in front of a parabolic reflector (the Search Light)
 14. Start a business in used Search Lights
 15. Complain about "California LBKWs"
 16. Complain about Light Wave QRM at Christmas time
 17. Write an article about Light Wave Intermodulation Distortion
 18. Ask the FCC to regulate Light Bulb Standards
 19. Develop a Light Bulb Frequency Coordination Plan
 20. Work with CBers to put Bulbs just outside the band plan
 21. Experiment with Infra-Red Bulbs, then UHF Ultraviolet bulbs
 22. Figure out a new X-Ray Bulb for DX under women's clothing
 23. Develop a Frequency Defense Plan for all Ham Bulbs (including X-Ray Bulbs)
 24. Put up a Light Bulb Satellite
 25. Go on David Letterman to explain all this (to the hoots of the watching crowd)
- etc. etc. etc.
-ARRL Letter, Vol 25, no 21

New & renewed members

from Howard Hallman, SWOT Secretary-Treasurer:

SWOT#	Call	Name	City	State	Grid
97	W5LUA	Al	Allen	TX	EM13
333	N5WD	Wayne	Fort Worth	TX	EM12
663	N5SRE	Mike	Pasadena	TX	EL29
1125	WB8YWA	Jim	Lewisville	TX	EM13
3111	WA5BEG	Randon	St. Inigoes	MD	EM12
3370	W5WB	Danny	Lancaster	TX	EM12
3451	WA5TKU	Wes	Sanger	TX	EM13
3453	KL7IZW	Steve	Princeton	TX	EM13
3495	K5THE	Doyle	Fort Worth	TX	EM12
3496	KD5NSQ	John	Denton	TX	EM13
3497	K5GD	John	Fort Worth	TX	EM12
3498	WB5TYE	Kieth	Bridgeport	TX	EM13
3499	WA0URJ	David	Bonham	TX	EM13
3500	KE5CCJ	Roger	Bonham	TX	EM13
3501	W6ZI	Ron	Collinsville	OK	EM26
3461	W5GM	Jay	Flower Mound	TX	EM13
2724	KA6CHJ	Paul	Vacaville	CA	CM98
3397	WA6ZKY	Gordon	Placerville	CA	CM98
3475	KE6OGL	John	Lathrop	CA	CM97
3476	WA6KTK	Steve	Manteca	CA	CM97

The lowly U-Bolt

Don't go up the tower without one (or two)!

Jim McMasters/KM5PO

If you're like me, you sometimes find yourself alone on the tower with the kind of work that makes you need another hand. This season, preparing for the June VHF contest, I've learned how to make do at times where it would have been necessary to stop. I'm referring to the use of a simple U-Bolt to act as a third hand. I found several uses for the lowly U-bolt (or technically - the muffler clamp) as you will see in the accompanying photos.

I look at tower work as a cross country trip in an airplane. You only get so much fuel and you must budget this energy and get back down on the ground with a margin of fuel remaining. If you



find yourself in a position where you're forced to hold up say 20 or 30 pounds of weight, you're gonna run out of fuel faster than if you can pin, prop, or otherwise support this weight without your own muscle. Remember to always exercise extreme caution when working at heights.



A 9 wavelength 432 yagi is supported temporarily by it's front director element leaving both hands free to do something else.

In these pictures which show the same application, a support clamp must be raised while it is attached by guy wires to the boom of a 30' yagi. This is done while standing on the top flat bearing plate 50' in the air and strapped to the 2" steel mast. Loosely attach a 2" UBolt under the clamp and then using both hands raise the loose clamp and UBolt into position. Holding the clamp in final position with one hand quickly finger tighten, then wrench tighten the UBolt. Now you can take your time on the clamp bolts making final adjustments, etc because you're relaxed!



Here a vertical 10' mast with antennas weighing 30 lbs is inserted from above into a pair of muffler clamps and a single 2" UBolt (red line) prevents slippage allowing hands free work.

An entire 30' 222 Mhz yagi (only 1 element is visible, boom slightly down & to the left of photo) is supported by a single tie wrap looped through the yagi's boom-to-mast UBolt and a single support UBolt allowing for comfortable overhead work while high in the air.

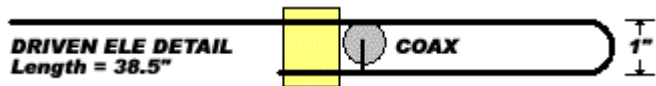


continued from pg. 7- Cheap Yagi revisited!

local Home Depot. The Yagi tunes up well at 144.200 and received the W5HN beacon from south Arlington (67mi.) for over a week straight while perched on a 10 foot support. During this time, a thunderstorm came up and a gust of wind drove the yagi into the ground. The antenna then became an entertainment item as straightening the elements is fun and also aids in sharpening ones' 3 dimensional spatial orientation. When Kent Britain, WA5VJB was told of the latest creation, he related the story of a backpacking qrp operator who would "wad up the entire yagi and then straighten it back out when he arrived at the operating site". Kent goes

on to say this would work ok for 8 or 10 times but then the yagi would need rebuilding.

Yagi Design	Dimension	Reflector	Driven	Dir 1	Dir2	Dir 3	Dir 4
3 element	Length	41.0		37.0			
3 element	Spacing	0.0	8.5	20.0			
4 element	Length	42.0		37.5	33.0		
4 element	Spacing	0.0	8.5	19.25	40.5		
6 element	Length	40.5		37.5	36.5	36.5	32.75
6 element	Spacing	0.0	7.5	16.5	34.0	52.0	70.0



Boom = 6' x 1.25" x .5"
 Elements = #6 copper ground wire
 Secure elements with Monkey snot or some other glue.
 Solder coax directly to driven element.
 Waterproof wood and coax connection.



Coax is soldered directly to driven element.



Now for some fun (see text).



HAMCOM 2006



L to R- Jim/KM5PO, Howard/WD5DJT, (seated) Art/KA5DWI, John/KM5ES, Jerry/N5OSK



Jerry/N5OSK



Flea Market



WSJT/SWOT dinner: L- Vivian/Brad's xyl, Eric/NM5M, Sarah/Bruce's daughter, Martha/Bruce's xyl, Jim/KM5PO, Jerry/N5OSK, Art/KA5DWI R- Brad/WQ5S, Steve/KL7IZW, Bruce/N5SIX



WSJT/SWOT dinner: R-Brad/WQ5S, Steve/KL7IZW, Bruce/N5SIX, Linda Tipton/Tips xyl, Tip/WA5UFH, Howard/WD5DJT, Joe/N6CL, Carol/W6CL L-Vivian/Brad's xyl, Eric/NM5M



Vendors in the hallway (Jay Terleski & Array Solutions)



Carol/W6CL & Joe/N6CL (VHF CQ Editor)

SWOT check-ins at Hamcom 2006

from Howard Hallman, SWOT Secretary-Treasurer:

Swot #	Call	Name	Grid	Sq.
893	WD5DJT	HOWARD HALLMAN		EM12
	K5BOI	JOHN WILSON		EM13
1045	W8CM	MIKE BAKER		EM13
3197	WB5JIO	HOWARD DONAHUE		EM26
3370	W5WB	DANNY CROMAZ		EM12
3396	W6JND	JANET DUNLOP		CM98
3395	W6BO	BOB OLSON		CM98
98	WW5KK	JERRY KNIGHTEN		EM23
3430	K5YC	JIM CRAWFORD		DM82
3451	WA5TKU	WES ATCHISON		EM13
97	W5LUA	AL WARD		EM13
3429	WA5UFH	RANDY TIPTON		EL19
3438	WA5THZ	CHUCK CUMMING		EM12
	KE5DWU	JIM BLAINE		EM22
	W6ZI	RON RUNELS		EM26
3406	KA5IGT	JIM JOHNS		EM13
3331	KM5ES	JOHN PETERSON		EM25
2959	N5OSK	JERRY CASEY		EM25
333	N5WD	WAYNE DAY		EM12
1125	WB8YWA	JIM HORTON		EM13
3340	KC5QBC	FLOYD RODGERS		EM12
3499	WA0URJ	DAVID REEDER		EM13
3500	KE5CCJ	ROGER ASHCRAFT		EM13
	AB5VP	ROGER MALLISON		EM13
3498	WB5TYE	KEITH BRIDWELL		EM13
3426	WD5HIU	DON GRIFFIN		EM13
3006	WA0CFQ	DALE A. CLARK		EM37
3427	K3TD	TAD DANLEY		EM10
3436	KM5PO	JIM & DELILAH	McMASTERS	EM12
3440	N0RQ	DAVE DUNBAR		EM13
3152	W5FKN	BOB LANDRUM		EM13
3453	KL7IZW	STEVE PLOCK		EM13
2502	N6GJR	CARL AYRES		EM12
663	N5SRE	MIKE FRIEDEL		EL29
3312	KD5FOY	LARRY D. CLARK		EM12
3389	K5UNY	ALEX KAPLINSKY		EM12
3111	WA5BEG	RANDON PORTER		EM12
3212	WA5JW	JOHN WHEAT		EM22
3333	WA5TMU	JACK VITTRUP		EM22
3350	N5SVK	DON HEJL		DM91
3294	K5LOW	DON SIMONTON		EM22
193	WA5VJB	KENT BRITAIN		EM12
	N5LXI	JOE L. SAMPSON		EM12
3217	KC5MGL	WADE MASSEY		EM13
2497	KA5DWI	ART JACKSON		EM12



#2 add more angle iron plus chain



#3 remove end piece

A low cost tower jack - from SWOT member

NU5D, Steve Bosshard [http://](http://www.bosshardradio.com/)

www.bosshardradio.com/




\$25 fence stretcher (above) + 2 pieces of angle iron + scrap chain=tower jack (below).



#1 add angle iron



#4 remove tower sections with jack!



The 2006 SideWinders-On-Two Radio Club (SWOT)

Perseids Meteor Shower Hot-Rock Shootout.

The Side Winders-On-Two Radio Club is proud to sponsor the 2006 SWOT Hot-Rock Shootout during the Perseids Meteor Shower that peaks on August 13th 2006. The contest will be one week starting August 10th at 0000 UTC thru 2359 UTC August 16th 2006.

All contacts will be made on 144 MHz and is sponsored by the SideWinders-On-Two Radio Club otherwise known as SWOT, a 2-Meter SSB Club. Certificates will be awarded to the top five operators in each category.

Categories: High Power Single-Op, Low Power Single-Op, QRP, and Rover.

The “High Power” category will be any station running greater than 200 watts output. Low Power Category will be any station running greater than 30 watts up to 200 watts output. The QRP Category will be any station running 30 watts or less output and should add “/P” or “-P” to the call. Rovers should add “/R” or “-R” to the call. A QSO can be made using any mode as long as they are outside the 8 adjoining Maidenhead Grid Square surrounding your home or portable. Exchanges will be both call signs and Grid Squares and “Rogers”. No single tones will be used during the contest using WSJT.

No “Assisted” or “Non-Assisted” categories exist. You are encouraged to use Email, Pingjockey, the DX World loggers, and the SWOT Yahoo Group page to announce where you are located, frequency listening on or sending CQ’s. Still, it is very important to remember that exchanging information without the use of meteor scatter *during* the QSO attempt voids the contact. Only one QSO per call is allowed, except for Rover stations in a different Grid Square.

Scoring: 1 point for any Digital, CW, and SSB contact. 5 points for each QRP and Rover contact. The total score will be your total QSO’s times the total amounts of grids worked. For example if you work 25 QSO’s and 15 Grids your total would be 25 FSK441 contacts X 15 grids for 375 points. For Rover QSO points x (Unique grid squares worked + Number of grids from which at least 1 QSO was completed).

Summary: Should have the following information.

1. Your Callsign
2. Your six-digit Grid Square.
3. Your power output during the time of the contest.

Logs: Your log must be in the following format.

1. Date, Time and Mode of the Contact.
2. Callsign of the Station Worked.
3. Grid Square of the Station Worked
4. And QSO points as mentioned above for each contact.

Log Submissions: Logs may be submitted in Excel, Word or Text format in the format above mentioned. Logs will be submitted to John Petersen KM5ES HC64 Box 1007 Eufaula,OK 74432 or sent to johnkm5es@gmail.com

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.**
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.
Lancaster, TX 75134-1214
Phone: (972)-224-5964
Email: wd5djt@swbell.net
Webpage: <http://home.swbell.net/wd5djt>

CHAIRMAN: Art Jackson/KA5DWI

Email: ka5dwi@sbcglobal.net
Phone: (817)-485-4977

VICE-CHAIRMAN & WEBMASTER :

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BULLETIN EDITOR:

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Email: km5po@arrl.net
Phone: (817)-563-2720
Webpage: <http://207.5.45.45>

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' email address listed above or you can mail them to Jim McMasters KM5PO, 2805 Shady Lane South, Arlington, Texas 76601.

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://www.thesignman.com/menu.html>

