

DELTA AMATEUR RADIO CLUB

SPARKS Web Edition

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W 4 B S R E P E A T E R S Y S T E M

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President's Page

It has been a busy month since my last bit of literary work. On October 20 & 21 a few of our members headed up by Jim, K14I set up a marine mobile station for QRP field day and made quite a few contacts. The following weekend Jim also coordinated a group of DARC members to help set up the tower trailer and operate a station at the Bartlett Folk Festival, held annually at Freeman Park in Bartlett. Several members spent their Friday night after a long day at work to help get the trailer set up and ready to operate on Saturday morning, and to them...thanks. In setting up the trailer for this event, Jim noticed that a few things needed to be done in order to make the trailer easier to set up, such as permanently mounting the rotor in the top of the tower and making it easy to connect to the rotor box. We had a couple of pieces of rotor cable, that were spliced together and really not long enough to do what was needed. Jim asked that the club purchase some new rotor cable and then he wired it to the rotor with plug-in connectors so that the rotor box can be plugged directly to the rotor for working on the unit when the tower is still in it's lowered position, or plug in the new 150 cable for operation with the tower fully extended. Next project will be to get some new coax for the antenna. Several other members went down to the trailer on Wednesday night before the hamfest to do a little cleaning and scrubbing and for Jim to make his modifications. Boy was it looking good. Plan was to take the tower to the hamfest site on Friday night for set up. Guess what.....it rained Friday and the trailer got a little nasty towing it on the interstate and got to the hamfest with a little road grime on it. Several members (the fastest known as the tower crew) gathered at the hamfest site Friday night to set up the trailer in preparation for operating the special event station on Saturday and Sunday. We even provided tower space for the 2 meter beam used by the hamfest talk-in station

Speaking of the hamfest, if you weren't there you missed the best hamfest that Memphis has had in the last 4 years. For those of you that have been doing your Rip VanWinkle impressions, Memfest '97 was held at a new location this year. How many of you know where "The BIG ONE" is at Hollywood and I-40 is? It was a great location for a hamfest and I was really shocked when I turned into the big parking lot on Saturday morning and had to search for a place to park. There were a ton of folks in there checking out all the bargains, several of which passed me headed to the parking lot as I was going in. A lot of those people took time to stop by our great Delta Club booth and say hi, renew memberships or sign up for the first time. Ben, KU4AW, Kathy KE4UYU and Tim, KF4DNA coordinated with the hamfest officials to make our club's part of the hamfest go smoothly. Kathy solicited the help of Regina, KF4IGS, and Carol, KF4FNB, to help set up the booth which for it that witch? had a theme centered around Halloween. We even had a oling pot of witches brew that was a hit with all the youngsters that happened by. Especially when Dom, AASN took the time to explain the properties of physics that allowed us to do it. The tower trailer, looming high above the roof, got a lot of interesting stares and positive comments. Some of you that only come out of hiding for the hamfest, said this was the first time you had seen it and were really impressed. The special event station wasn't as big as I had hoped but we made quite a few contacts, getting very good signal reports. The station really didn't get any advance press and there was no sign to let everyone know what it was and if they announced anything about it, I don't think anyone heard it. The only negative comment that I heard about the hamfest was the sound system. Unfortunately that's what was in the building and the hamfest folks had to do the best they could with what they had. I know that no one heard them call my name for a radio.....darn.

On October 14th we had our monthly club meeting, including a great program on the Volnet Repeater System. Mark , KD4MJA and Jeff, KD4GCT came down from Pinson, TN to explain what the Volnet system was, how it works and how it's used as a great communications link over almost all of West Tennessee and extreme North Mississippi. After a short break to grab some coffee and deserts, the nominating committee, represented by Jimmy, N4ZCO presented their nominees for club officers to serve for the 1998 calendar year. You will find these nominations listed elsewhere in this issue of SPARKS. With three calls for nominations from the floor, none was heard and nominations were closed until next month's meeting. Among other items of business, those of us that were in attendance at the meeting cleared up a point that has been grating at me almost as long as I've been a ham. Recently the subject was mentioned to me again concerning a "clique" within our club. I have heard this several times and have always shrugged it off, taking into consideration that the people who say this are either misinformed or just out to cause trouble because they didn't like the way something was done. After a fair amount of discussion among those in attendance, it was declared that if there is a clique within the club, it was made up of those members that get involved with club activities on a regular basis and are the core group of people that are always there to see that things get done. People that work together on project after project naturally develop closer friendships and do things together outside of club activities. One of my goals this year was to get more people involved in the club and it's many great activities. While I think a few more have become more involved it hasn't been as much as I had hoped. Several people have told me, including an amateur from Jackson, MS that I met at the Titanic exhibit, that only a small percentage of any club's members actually get involved no matter what you do. I have come to believe these people are right, but if you are one of the folks that think that there's a clique in the club and you're not a part of it, let me say that you are welcome to join it, all you have to do is get up off of it and get involved in your club. IF there is a clique in the club, it's made up of those members that care about the club and it's future and are the driving force behind the club, seeing to it that the club's light shines brightly and is prepared to serve it's members and it's community.

On the night of October 17, the tower crew met after work at Powell Park in Collierville to set up the trailer for use in Jamboree on the Air on Saturday. Other members gave of their time to come by for a few hours on Saturday to act as control operators for the many scouts that came by to find out about amateur radio and talk to other scouts all over the United States and the world. More information on JOTA will be found elsewhere in the newsletter. This was the third consecutive year that DARC has sponsored the JOTA event in the Memphis area. Thanks to all of those that came out and helped will all the events of the past month.

In closing let me say that, as you may have noticed, I have refrained from trying to list all of the people that helped with each event. Last month I learned my lesson and unintentionally left out someone that helped with the Juvenile Diabetes Walk for the Cure. They say that you run the risk of forgetting someone if you try to thank everyone involved in something and I finally did it. My apologies for the omission and also thanks to Barbara, KE4BUU for her assistance in this event. Barbara has recently retired after many years as a school teacher and is becoming more active in amateur radio. She also volunteered time earlier this summer with the Food Bank fund-raiser at the Summer Shopping Center.

That's if for this month, if you haven't fallen asleep reading this. As always, I look forward to seeing you at the November meeting. Come ready to get extra tickets in the barrel before the drawing starts for the \$1500+ in prizes next month. Just prior to the prize drawing, we will open the floor for nominations and then vote on officers for 1998, give out a few awards and then start drawing tickets. Better get those extra tickets in the barrel before you have to help Ned carry all his stuff to his truck. He's won the gift certificate for the last three months in a row, and he's got his eye on that Kenwood TM-V7A dual bander.

73, Tommy, KD4TJO

VICE PRESIDENT'S CORNER

It's been a long time coming, but we have finally gotten a start on the "Sea of Blue" that I have talked about for the past nine months. As you all might recall, I had said that we would have the jackets by October 10th, just in time for the Hamfest. Unfortunately, due to an illness in the seamstress's family this deadline was not met. I'm sure, like me, there were a lot of disappointed members out there that have been counting on getting their jacket in time for the Hamfest.

At the September Board of Director's meeting, I proposed that Club purchase the number of jackets we would need in order to solidify the price of \$37.75 per jacket. I wish I could take credit for this idea, but I can't. At the September meeting, Steve Feltman, KC4ZOV, came up to me at the break and made this suggestion, and what a terrific suggestion it was. This idea permitted everyone who had ordered a jacket to get their jacket sooner than had we waited for the magical number of 36 to be attained. Thanks Steve for such a great idea!!!!

Unfortunately, there were some mistakes made in the embroidery, incorrect callsigns, callsigns put on the wrong jacket, and the letter "c" on the big logo on the back looked more like an "o". We are in the process of resolving these issues. I apologize for this but I guess it's a cost of doing business. The positive side of this whole matter is that Delta Club is not incurring any additional costs. This is being worked out between the supplier and the embroidery person.

We have an ample number of jackets available if you would like to purchase one. Every jacket that Delta Club purchased has the Delta Club logo on the back and on the front. If you would like to purchase a jacket, give me a call at 372-8031, or wait until the November meeting and purchase one then. If you want your callsign embroidered on it, we can arrange for this to be done at an additional charge.

I am now going to start researching in the area of shirts. I'd like to be able to offer to the club members a "golf" shirt with the Delta Logo on the right breast. At the moment, I do not have any prices, but will be talking with the representative from Signt Promotions sometime this week. In addition, I am getting prices for embroidered patches, roughly 3 inches in diameter. As yet, I do not have that figure but as soon as I do, and I get permission to order the patches, you will be able to buy Delta Club patches that you can sew on jackets, vests, hats, etc.

So keep checking SPARKS or give me a call, we're on our way to that "Sea of Blue". It's taken some time, but as you all know Rome wasn't built in a day.....

There is one other topic that I'd like to address in this month's article, and that is about the support that Delta Club members showed for their Board of Directors at the September meeting. Our President stood before us and asked for input about a decision that he had made. I think it takes a lot of courage for any person to stand before their peers and ask for constructive criticism, but that's what our President did. He had made a decision, a decision based on the By-Laws of the Club, based on the Rules set forth by the FCC, but he still felt that he needed the input of the membership. It was very heart-rendering to see numerous members step up and let, not just the President, but the entire Board of Directors, know that the action they had taken was the right action and that he and the Board were doing their utmost for the benefit of Delta Amateur Radio Club.

I want to thank each and every member who commented on the actions taken by our President, and those who silently agreed too. Your support made the decisions much easier to make and more tolerable to accept.

As a member of the Board of Directors, I want to thank each and every member for the support you have shown towards the work that we are trying to do.

73, Ben, KU4AW

Secretary's Report

I look forward to the Memphis Hamfest each year because I get to see folks I haven't seen for quite awhile when they stop at the Hamfest booth, but I was also able to meet some hams I had only spoken to me till now. For me, it had the feel of a family reunion. I had the opportunity to talk with many of you and get caught up on what has happened since the last hamfest.

I really appreciate the help I had at the booth, both in setting up and taking it down, as well as behind the tables greeting people, answering questions, and generally letting them know just how friendly everyone in Delta Club is.

We had a good start to our membership drive. The following hams renewed their memberships in Delta Club:

Robert Greene, KE4HFF, Sylvia Greene, KE4WOT, Danny Malone, AA4DM, Gene Holland, KE4WDA, Elizabeth Holland, KF4MDC, Jim Osborne, N4OXY, Beau Harper, KE4KJM, Alex Graham, KE4GYR, Regina Graham, KF4IGS, Wayne Greene, KB4GFK, Shirley Greene, KB4GHC, Ray Hyatt, KD4HKL, Ron Dubbs, NU4U, Lee Dubbs, N4EBM, Ben Barth, KF4GNC, Eloise Barth, KF4GNB, Jim Olberding, WD8JAO, Jeanette Olberding, KC4VYJ, Henry Bailey, Jr., KU4DY, Carol Bailey, KF4FNB, Henry Bailey III, KF4FNC, James Livingston, KD4BYK, Dom Desiderio, AA5N, Bob Holdford, KF4NDH, Ben Troughton, KU4AW, Kathy Troughton, KE4UYU, Fritz Stauffer, AB4HS, John DeBaker, KR4HB.

We also had the following hams join the club as new members. Some of them had been members before and some of them are new to the hobby. If you hear them on the repeaters, please give them a shout and introduce yourselves.

Andy Steadman, N5TAY, Dan Haire, WD4KWE, Brian Kusler, KF4EWO, Wendy Kusler, KC5YIX, Bill Mathis, KF4IYD, David Siglin, KC4LTC, Phil Payne, KB5OCC, Mark Weeks, KE4ZHL.

Don't miss the November Delta Club meeting. Not only will you be electing next year's officers, but a whole lot of prizes will be given away.

See you there! 73, Kathy KE4UYU

Nominations for 1998 Delta Club Officers

At the September Delta Amateur Radio Club's monthly meeting, Tommy Thompson, KD4TJO, DARC President, announced the Nominating committee he had chosen to select a slate of officers for the 1998 term of office.

The nominating committee consisted of: Jimmy Pierce, N4ZCO, Regina Graham, KF4IGS, and Jim Tate, AF4AI. Having been on the nominating committee last year, I can tell you this is no easy task. Our hats are off to this year's nominating committee, a fine group of people that seem to have the Club's best interest at heart.

The committee met on two different occasions, discussing possible candidates, contacting those discussed, and putting together a list of names to be presented at October Club meeting.

Jimmy, N4ZCO, speaking on behalf of the committee, presented their suggestions for the 1998 board.

President Ben Troughton, KU4AW

Vice-President Bill Hancock, WA4MJM

Secretary Kathy Troughton, KE4UYU

Treasurer Ernie Christensen, WA6KOC

Dir. of Publications David Pace, KU4AS

Dir. of Training Melinda Thompson, KE4DXN

Dir. of Programs Ben Barth, KF4GNC

Dir. of Meetings and Special Events Bill Covington, KD4SXT

The floor will be opened again at the November meeting, just before the elections are held.

The Floor was opened for any nominations from the Club membership, and after 3 calls from Tommy, KD4TJO, with no additions, the nominating period was closed for the October meeting.

Please remember, if you wish to nominate someone for an office: 1) Make sure you have asked that person if they wish to be nominated, 2) That they have been in attendance at least 6 club meetings in the last 12 months.

A number of people at the meeting expressed their approval of the nominating committee's selections for the Officers for the 1998 year, however this does not mean that nominations cannot be taken from the floor. Additional nominations are WELCOME!!! and requested if anyone has a suggestion.

Again our thanks to Jimmy, Regina, and Jim for their hard work in putting together this list of people. Make sure you are there at the November meeting to cast your VOTE. Remember this is OUR club, and everyone's input is needed and welcome.

See you there at the November Meeting.

David, KU4AS, Dir. of Publications

AMATEUR HARDWARE UPDATE

Many times Amateurs have to hook up computers and electronic equipment. The problem is with all the power connectors there are never enough power plugs.

This month's project is the IEE Power Cable Multiplier. It combines male and female IEE standard power connectors hooked together for common power use with power supplies, computers, printers, monitors, and add on equipment.

These type of connectors have become a standard on computer equipment and are now showing up on Amateur radio equipment.

The multiple female connectors allow extra equipment to be run. I will have the IEE Power Cable Multiplier at the meeting to show, and answer questions for those who wish to build their own units.

SEE YOU AT THE MEETING.....

James Butler KB4LJV

PACKET UPDATE

Alpha Delta has come out with a new external speaker with built-in audio processing. The unit comes with a speaker, audio amplifier, Bass boost and cut circuitry, a switched capacitor filter for voice and Digital modes, peaking circuitry, and a notch filter. The unit also has a built in low level audio output for recorders and headphones along with an LED read out for filter frequency settings. The unit also can be used along with DSP filters. The 12 volt wall transformer is included for power.

If you are looking for a modern external speaker with these features, check out the Alpha Delta Variable Response Console.

James Butler, KB4LJV KB4LJV

VE Liason.....

Here it is the end of the year already and it doesn't seem that I have been your VE liaison for a year and a half, but it really has been that long. I really do enjoy seeing all the happy faces as people join our hobby and upgrade their license.

This month we had 5 people join the testing session and we administered 9 elements.

Congratulations to Kurt Schropp, KF4SIX, on his upgrade to General, and to Tim Billingsly, KD5CKP, on joining our hobby.

A big thank you to Jimmy Pierce, N4ZCO, Barry Atkins N4QW, and Steve Greer N4SG for all their continuous help. REMEMBER the month of November NO TESTING SESSSION because of club elections. Looking forward to seeing you at the November meeting and the December testing session.

73,

Joan, KN4PM

Why Are Antennas Built to Look Like They Do?

Published by The Tech Bench Elmers Amateur Radio Society

By: John Wendt WA6BFH

We come to recognize the proportionate shape and appearance of antennas. If we see a half wavelength dipole we recognize it for the antenna it is. When we see a Ground Plane antenna we know what it is. Its just the same as when we see a Ford automobile next to a Volkswagen we know which is which. It is possible though for Ford to build a car that looks like a Volkswagen but, it's not possible to build a dipole that looks like a Ground Plane, or a "J" antenna that does not look like the letter J! Lets investigate this, and in fact we can start with the "J" antenna as our object model.

"J" Observe that the vertical portion of the letter J is about two times higher than the portion that forms the crook of the J, or we could say that the height of the J is three times the height of the crook. It is for this reason that the J antenna got its name.

The crook portion of a J antenna forms a "Linear Impedance Matching Transformer" or "Q-Line" transformer because of these two parallel conductors that are 1/4 wavelength long. Above this Q-Line is the radiating portion or "radiating element" that is 1/2 wavelength long.

At the bottom end of this quarter wavelength Q-Line which is electrically shorted together, there is a dead short zero Ohm impedance. One quarter wavelength above this dead short is an infinitely high impedance of thousands of Ohms. This is how any Q-Line device such as a "Bazooka Balun" works.

Dipole! Now some who have read this article so far might be scratching their chins about now thinking, he said the radiating element is 1/2 wavelength long. Gee, a dipole is one half wavelength long! That's right, a "J" antenna is merely an "end-fed" dipole! Another name for an end-fed dipole is a "Zepp", because this form of dipole was first used on Zeppelins. So how is the more common version of a dipole different?

In the J antenna we feed the dipole on its end at the high voltage point of the antenna. If we feed it at the center at its high current point, we will see a much lower impedance or alternating current (AC) resistance. In fact the characteristic "radiation resistance" of a center fed dipole in free space is 72 Ohms. Free space by the way means that the antenna is several wavelengths above the ground, or any other conductive object. Usually free space means at least 10 wavelengths but, for practical design considerations 3 to 5 wavelengths is often times hard enough to achieve!

What happens if we feed a dipole not at the center, and not at its end but, half way in between. This sort of antenna we call a "Designator" named after the antenna's radiator. This type of dipole has a characteristic impedance or radiation resistance of 600 Ohms. This feature allows this sort of dipole to be operated on almost any frequency within several octaves of its design frequency, and always present a relatively moderate impedance and consequently a decent "SWR".

Next lets take a look at "Ground Plane" antennas, afterall, aren't they just another variation on a dipole? Well, it's certainly true that they are "current-fed" at the center of one half wavelength. If you have ever seen a Ground Plane fabricated on a chassis mount coax connector you can see how this antenna works.

You start by cutting five quarter wavelength metal rods. I have always used Brazing rod. If we were going to make such a Ground Plane for the 2 meter wavelength band we would cut these rods to about 19.25 inches. If we start by just soldering on two of them, one to the center connection, and one to one of the flange holes, we have sort of a dipole. Actually this probably looks closer to an "Inverted V" type dipole but, I think you get the picture! So, now we have one of these 1/4 wave rods connected to the center conductor of our coaxial transmission line, and one of them connected to the shield. So, why should we solder on the other three, won't the antenna work just these two? It would work as far as the transmitter is concerned. It would have a characteristic impedance pretty close to 50 Ohms, so the transmitter would be happy! The trouble is that without the other "radials" to form a uniform "counterpoise", the antenna is not the "omni-directional" antenna we were seeking! If we left it looking like an Inverted-V, it would have a figure-eight radiation pattern broad-side to the two rods. If we provide three radials 120 degrees from one another, or four radials 90 degrees from one another, the antenna will have an omni-directional radiation pattern. By the way, the radials really should be about 5% longer than the radiating element. Also, if the antenna has 3 radials, they will have to be bent down at a lower more acute angle to achieve a 50 Ohm impedance match to the transmission line.

So, what's the bottom line to all this palaver? Simply this, all antennas, any antenna can be analyzed as to its design by analyzing its current and voltage distribution. The end or tip of the antenna is always going to represent a high impedance and high voltage point. If we measure down 1/4 wavelength we will find a high current point and a relatively low impedance. If we follow this process all the way back to the feed-point we can determine all aspects of the antenna including the antenna's aperture size, and the aperture size will tell us the antenna's approximate gain. Every time you double the aperture size of an antenna you double its gain, which means you pick up 3 decibels of gain.

Lets check this out by looking at one last J antenna which has come to be called a "Super J". A Super J starts with a normal looking J just like we see so many of nowadays. At the tip top of this J a quarter wavelength phase de-coupling stub is added, and then another half wavelength dipole is placed on top of the phase doubler. Guess what happens next, we gain 3 "dB", or 3 dB's above a dipole of reference! In "dB" this would be 5.2 dB's compared to an "Isotropic" de-coupling stub is

Terms Q-Line, Bazooka Balun, or linear impedance matching transformer: All of these are electrically speaking the same thing. A Bazooka Balun only differs in that it is fabricated from two lengths of tubing, as well as a central coaxial inner conductor. These are all one quarter wavelength long!

Radiating Element: This term is both hard to closely define, and in fact is a bit of a misnomer. The vertical element in a Ground Plane is sometimes called the radiator or radiating element but, it really radiates in conjunction with other associated elements that form part of a half wavelength.

End-fed, and center fed: These terms are closely associated with the terms, "Voltage Fed and Current Fed". At the end of a half wavelength there is an infinitely high impedance and consequently an infinitely high voltage. At the exact center of a half wavelength is an infinitely high current and virtually by contrast, no voltage and a very low impedance.

Characteristic Impedance: All conductors or wires have both some amount of inductance and some distributed capacitance, this in itself provides a "lumped constant" derived impedance. In various configurations such as two wires parallel to one another, a characteristic impedance will result. Wires that are brought more closely together will have a lower impedance as parallel capacitance rises, or if they are farther apart this impedance will rise as capacitance is reduced. Radiation resistance: All antennas have a characteristic radiation resistance because of the comparative effects of their distributed inductance and capacitance. This can also be expressed as a current to voltage ratio. Whatever this ratio is, a characteristic impedance will result. For a dipole this is 72 Ohms, for a 1/4 wave Ground Plane with radials at 90 degrees to the radiating element this is about 34 Ohms, and for a 5/8 wavelength Ground Plane its about 90 Ohms.

SWR: Standing Wave Ratio is the term given for the measurement of current or voltage distribution as imposed within the antenna. It is usually measured as a voltage and therefore the term often used is "VSWR". If an antenna has a radiation resistance of 72 Ohms and we feed it with 50 Ohm coaxial cable, the SWR will be 1.44:1. If we fed a 90 Ohm antenna directly with 50 Ohm cable the SWR would be 1.8 to 1 (1.8:1 or 90/50 = 1.8).

Phase de-coupling: When ever the aperture size of an antenna is increased we have made provision for the additional antenna elements to work in phase with the other elements. On vertical omni-directional antennas this is done by phase de-coupling half wavelength radiators with quarter wavelength phase de-couplers.

Gain: Antenna gain is often times a controversial subject. It really shouldn't be, for the following reason. Every time an antenna's aperture size is doubled, its gain will double. If I properly stack one beam antenna of equal size over its predecessor I will have doubled its aperture size. If I ignore the losses imposed by the feed line and phasing network, I will have added 3 dB's of signal gain. Don't forget though, there's no free lunch. If I put a 10 dB gain antenna on a 100 foot tall tower and use poor or cheap coax cable to feed it, it may well turn out that I have less signal gain than I would have had by adding a unity gain "J" up at 30 feet with good coax.

Editors Note:

I found this article while surfing the web. I thought it to be very interesting and informative. I do hope that you enjoy it. If you are interested in looking the web page up, you can find it at:

<http://www.geocities.com/SiliconValley/2775>.

This is the web page of "The Tech Bench Elmers Amateur Radio Society". I hope you enjoy it. If you find interesting articles that you think might of interest to everyone, please send it to me or tell me where you found it, if on the web. You might also ask for permission to reprint if you think about it. Please let me know if you have received permission, if not please let me know where to go to get the permission I need to reprint an article from another publication.

Bartlett Christmas Parade

The weather is turning wet and cold, so it must be time for the annual Bartlett Christmas Parade. Each year the Delta Club joins together for another public service event. However this one always seems to be more fun than work. We have always had fun doing this event and I know that the organizers of the parade really look forward to having us help them with the setup and communications during the parade. So get the long-johns, flannel shirts and heavy coats out of the closet, charge up those HT batteries and be there. Oh yeah, don't forget the party afterwards at Jim and Jeanette's house. Listen to the net's for more information.

December Club Meeting

Start making your plans for the December club meeting. Suresh announced at the Board meeting that the Dec. meeting will be a Christmas program for the entire family (especially the kids). Fun food and who knows, the Jolly old Fellow might just show up to see all of us.

E-Mail Us.....

Tommy Thompson.....President.....melinda@mem.net

Ben Troughton.....Vice President.....bktrough@mem.net

Kathy Troughton.....Secretary.....ktrou@nb.utmem.edu

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Bill Hancock.....Dir. of Training.....billw4mj@bellsouth.net

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Suresh Kagoos.....Dir. of Programs.....skagoos@msn.com

Tim McNeil.....Dir. of Meetings & Special Events.....tmcneil@tssc.com

Dom Desiderio.....Past President.....didesiderio@utmem1.utmem.edu

Joan Thorne.....VE Liason.....joan@mem.net

Tim Morrow.....Repeater Trustee.....tmorrow@msn.com

Tell Me What You Think

I have been your Director of Publications for almost a year now. During this time I have learned alot about computers, the internet, and a lot of programs. I have had the pleasure of reading a lot of very interesting material during this time. Some of you have sent me some very interesting articles to print in Sparks. I would like your input as to what you would like to see in the coming issues of Sparks. I have been nominated to serve as Director of Publications for the 1998 year. If I am re-elected, I would like to have a lot more input from the club. Almost all of us get QST, some get 73, some of us are in different clubs. Look around at the different material you read and if you see something that you would like to see in Sparks, please get it to me and I will make every effort to publish it. I would like to see some articles on different things, human interest, other hobbies that relate to Ham radio. Tell us about how you got interested in Ham radio, interesting contacts. Help me make this the best pub. around.