

SEITS

SouthEast Iowa Technical Society
<http://www.seits.org>

The Technical Journal

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January Meeting

The first meeting of the new year will be on Sunday, January 10, 1999. We will be meeting at the Country Kitchen in Iowa City. Lunch is at noon with the meeting at 1pm.

1999 CALENDAR

by Mary Beth Penne, N0IJP

I am working on the calendar for 1999. It will contain the meeting dates, cities, and locations for the entire year. However, I would like this calendar to be more than that.

This is where all of you come in. I have a pretty good idea what is happening in the Ottumwa area. But I really do not know what events are scheduled in the Quad Cities, Waterloo, Keokuk, etc. So I really need all of you to send me a list of events in your area. Also include hamfests you attend. This is important because you may go to a fest that I would not because of the distances involved.

Please get me this info by the next edition of the Journal, and I will include it in our calendar. You can send it via packet to N0IJP@KE0BX.#EIA.IA.USA.NA, email to marybeth@seits.org, or just call me at 515-682-3825.

Thanks! MB

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by Mark Atherton, N0RXD

Club Officers:

President - Michael Muldoon, KE0BX
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Vice President - Dennis Hoffman, KA0UKA

Sec/Treasurer - Mary Beth Penne, N0IJP
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President's Column

A CALL TO ARMS

First of all, I would like to thank the outgoing officers for all their hard work and contributions to our group. Dave Metz, WA0AUQ, has served many years, first as Vice President, then as President. He was the force behind the high speed packet network, and the SEITS Linked Repeater Network. I don't believe there is a single one of us who has not ask for, and received, help from Dave at one time or another. Thanks Dave!!

The other departing officer has also made huge contributions to the group. Dave Helton, KD0YU, through his employer Circumspect Corp., provides the site for our web page and list server. Dave also took on the publication of this Journal and has written several articles on microprocessors. Thanks Dave!!

I would like to outline some of my goals for this term of office. We now have a valid Constitution and By-Laws. Our next step is to work toward incorporation as a 501(c)3 non-profit corporation. We also are going to work toward getting insurance coverage to protect the physical assets of the group.

The web site has proven to be enormously successful on a global scale. We are rapidly becoming one of the acknowledged sources of information on Motorola Mitrek radios for repeater conversions. We have received email from around the world on our conversion notes, Dave Metz's explanation of duplexor theory, and many of our other articles as reprinted from this publication, the Technical Journal.

I would like to see us maintain this position, and indeed increase our scope. To this end I have already asked some of you to write on topics on interest to you. Now I am asking all of you to contribute to this endeavor. Please let us know what you are interested in seeing covered in the Journal. And don't be afraid to drop us a small article from time to time.

I have more ideas, however this is not MY organization. It is OUR organization. As such, I need all of your help to make this group as interesting as possible. We need YOUR ideas, YOUR interests, and YOUR input to grow.

So over the next couple of months, we will be covering this topic quite a bit, both here in the Journal and at our monthly meetings. We already have a couple of series lined up: Bill, W00MV, will be writing some articles on the APRS system, and Mark, N0RXD, will be looking into TCP/IP and NOS on the packet front.

So bring your ideas and let's get started!!! KE0BX

The NOS Box

by Mark Atherton, N0RXD

NOS stands for Network Operating System and uses the internet TCP/IP protocol over packet radio. This allows your computer to use internet-style messaging, file transfer, and connections over RF.

First, a little background information. The standard protocol for packet radio is called AX.25. It is the series of connects, replies, acknowledgements, and rejects that provide error-free communication over RF. What NOS does is carry TCP/IP on top of the AX.25 layer. Since NOS has to speak AX.25 as well as TCP/IP, its stations are also compatible with the standard packet BBS and PacketCluster systems.

The basic premise behind NOS is that every station knows or can find out any other station's address, and the route it will take to establish a real-time connection. To communicate with another station, it will call the station and send or receive the information, and keep trying until the task is done or it is asked to stop. This is what makes NOS different from the packet BBS "store and forward" system.

Unfortunately, NOS is not plug and play. (I can hear Bill Hays saying that it is if you run it on a MAC, which may be somewhat easier). This is because each station must have its own unique address, identification, routing information, and must be configured to operate in the desired way. NOS has been packaged in several different "flavors" that support different features.

OK, I know, this is all well and good, but what people want to know is "What can NOS do better than standard packet and why would anyone want to spend the time and trouble to set it up?" Well, what I've been able to do is exchange files and programs with friends, send and receive internet email with anybody, and browse amateur radio websites. These things can be done by using the internet, but I enjoy the challenge of doing it using RF, and not tying up the phone line.

So what is needed to run NOS? Well, my first station was a 6 MHZ IBM 286, a PK-88 tnc, and an old Amcomm 2 meter rig. At 1200 baud, it was sometimes slow but did work well. Now, I run it under Linux on a 468/33 with 2-9600 bps tnc's and 2-70cm radios as well as 2 meters. It is required that an amateur radio TCP/IP address be requested through Iowa's TCP/IP coordinator, Ron Breitwitch, KC0OX. Information needed to do this is the station name, location, AX.25 callsign, and planned hours of operation.

I am fortunate to be close to Iowa's only amateur radio - internet gateway in Cedar Rapids. But the resources can be used by anyone as long as there is an active RF path. In the coming months, I plan to write about more of the details, in hope of gaining some converts.

73 de N0RXD
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JOURNAL NOTES

Due to illness at the Muldoon household, this issue is running late. We are going to do everything we can to get the Journal to you at least a week before the meeting. Therefore in each issue you will find the submittal date to make the next issue. The deadline for the February issue is Monday, February 1. We will begin assembling and printing on Tuesday, February 2 with a target mailing date of Friday, February 5.

The February meeting is the Annual Meeting and will be a dinner affair for the whole family. Location has not been decided yet, so chime in with your suggestions.

We will run a Want Ads/Buy/Sell/Trade section in the journal anytime anyone wishes to advertise. This is NOT for business ads, unless of course you want to pay us to run them!!!

Til next time. KE0BX