



KEY CITY AMATEUR RADIO CLUB

October 2002

September Meeting Highlights

Kent West, KC5ENO

President John Dyer, AE5B, called the meeting to order at 7:10pm.

Peg Richard, KA4UPA, then read the Treasurer's Report, followed by a brief report on our beloved Judy Smith, KB5THH.

It was noted that we have three members with similar calls: David Bufkin, WX5ATX; Tony Tillman, WT5TX; and John Bogart, WX5TX.

John then reminded those assembled of the invitation from the National Weather Service to join them at their booth at the West Texas Fair and Rodeo. The NWS is doing all the work; we can just "hang out" with them. There's a 2-meter radio and a logo sign set up at the booth, and we could just sit there and talk about radio and Skywarn with booth visitors. Passes to the Fair are available for those willing to man the booth.

Bill Shaw then gave a brief report on the upcoming RACES "Weapons of Mass Destruction" training exercise. It will be conducted on the 17th, 18th, and 19th of September. Ham volunteers should contact Mark Whitten of the City of Abilene. Bill has the name of 2-3 folks who have stepped forward; he still needs another 3 or 4 people.

John then introduced Ron Cole and Jan More, representatives of the Red Cross who had been working the

NWS booth at the fair and decided to visit our club meeting. They have asked for help in evaluating some radio equipment in the Red Cross building here in Abilene. Jim Richard, K1UQI volunteered to take a look.

Then we had a presentation concerning the Salvation Army Team Emergency Radio Net (SATERN) by Jerry Jennison, Al Bunt, and Major Johnson. This organization provides communications for the Salvation Army during emergencies. When it was originally formed in 1988, they had four check-ins. Now the organization has grown to over 2000 registered members. More info can be found at <http://www.satarn.org>.

Al Bunt, Disaster Chairman for the Salvation Army, then gave a brief explanation of the history and mission of SA. It started in England by William Booth of the Unitarian Church, who felt compelled to address the needs of the poor. From a beginning of simply providing shelter in the church building, this movement grew into an "army" against drugs and alcohol abuse and poverty, etc. Today the Salvation Army functions as a church, as a disaster and emergency relief organization, and as a provider of youth programs.

Throughout recent disasters, it has become clear to the Salvation Army that ham radio operators are needed at each of their "canteens" (portable emergency relief vehicles), which "have everything but an oven and a toilet". To that end, the SA have

begun offering training in Amateur Radio for their members.

The next SA meeting will be 7pm on the 26th at 1726 Butternut St. It was mentioned that "You don't have to be a Christian to work with the Salvation Army, but it helps."

It was announced that the next VE Test Session would be conducted on 5 October at the Berry Lane Baptist Church.

Jake Mullens, KC5GZP, motioned to adjourn the meeting; Carla Dyer, K5RLA, seconded, and the meeting was adjourned at 8:08pm.

Kent West, KC5ENO, then gave a brief demo of KNOPPIX, a free (Debian Linux/GNU -based) operating system-on-a-CD that doesn't require your Intel-class PC to have a hard drive in order to run a graphical, network-aware, MP3-playing, game-playing, web-browsing OS. From the requests for a copy of the CD, it was apparently a big hit. You can download your own copy from <http://www.knoppix.com>.

Club Meeting!

Kent West, KC5ENO

Remember to attend the Key City Amateur Radio Club meeting, Monday, 14 October, on the second floor of the city library.

What would chairs look like if our knees bent the other way?

NWS WTX Fair Booth

John Dyer, AE5B

Several KCARC members and former members assisted or just "hung out" with Buddy, Hector, and their crew at the National Weather Service's booth at the West Texas Fair and Rodeo last month. The two meter rig was operational but one of the other features of the display was a continuously running video tape of several tornado events. The resulting ambient noise level made operating difficult. As long as the rig was operated at the low power setting, it created no interference problems sitting alongside the NWS VCR.

Computer Literacy, Part II

Kent West, KC5ENO

Okay, okay; here are some of the answers

Know how to bypass the items in the StartUp folder when starting Windows. Hold down the left shift key while Windows is starting. This will not bypass any programs that are starting as services or that are loaded via other methods, but it will stop those StartUp folder items from starting up. Handy.

Know what a macro virus is. A macro virus is a virus that is spread using the macro capabilities of Microsoft Office products. Until MS-Office 97 was introduced, it was standard practice to keep executable code separate from documents, but with Office 97, Microsoft started embedding executable macro code within users' documents. It didn't take long for the virus writers to take advantage of this (seldom-used by the majority of users) "feature". Until this point in time, viruses were a nuisance on the Windows platform; after this, viruses became a plague. The situation was made even worse when Microsoft continued down their path of features-at-the-cost-of-security with the virus-encouraging design of MS-Outlook.

Have an opinion concerning Intel vs AMD. These are the two dominant manufacturers of Central Processing Unit (CPU) chips for PCs.

Know what a Dvorak keyboard is. It's a standard keyboard, but with the letters rearranged for more efficient typing. The urban legend is that when the typewriter was developed, typists were so fast that it caused the mechanical keys to jam, so the keyboard was redesigned to slow down the typists to a speed that the machine could handle. This resulted in the QWERTY style of keyboard you're familiar with, that we've been stuck with ever since. People who spend a lot of time at the keyboard and don't have reason to use other "standard QWERTY" keyboards might benefit from using a Dvorak keyboard.

Know what a BIOS is. It's the Basic Input/Output System. When you first turn on a PC-style computer, there's a program built into the motherboard (older machines didn't have this program built in but rather had it loaded in via floppy or some other method) that does some basic housekeeping, including some basic tests of the hardware. Even if you were to rip out all the drives and all the RAM from your machine, this BIOS would still exist and run when you powered up your computer. Most BIOSes (aka SETUP routines) can be accessed during bootup by pressing some key such as F1 or DEL. Once in, the user can set such things as what type of floppy drives are connected, or the system data/time, or boot-up passwords, etc.

NTIA gives thumbs down to 5 MHz petition

Submitted by John Dyer, AE5B

SB QST ARL ARLB053

The National Telecommunications and Information Administration--the NTIA--has recommended that the FCC not grant an ARRL petition for a domestic-only, secondary Amateur Radio allocation at 5 MHz. The NTIA regulates radio spectrum allocated to the federal government. The last-minute recommendation followed hundreds of largely favorable comments and reply comments from

organizations--including the ARRL--and from individuals.

In an August 21 letter, the NTIA's Fredrick R. Wentland said federal agencies are making extensive use of HF for emergency services, including communications support for the Department of Defense, the Coast Guard and Department of Justice law enforcement activities. "NTIA believes the Commission's current proposal does not adequately provide for protection from harmful interference to these critical government operations primary in the band," said Wentland, who is NTIA's acting associate administrator for spectrum management.

ARRL General Counsel Chris Imlay, W3KD, and ARRL President Jim Haynie, W5JBP, plan to meet with representatives of the affected agencies to address the concerns raised in the NTIA's letter.

In its recent comments, the ARRL called the 5 MHz allocation "an urgent priority of the Amateur Service" and asked that the proceeding to grant it be expedited. Wentland's letter arrived at the FCC beyond the cut-off date for reply comments in the proceeding, ET Docket 02-98.

Wentland said that without a more complete understanding of the interference potential to federal operations, the NTIA believes the secondary amateur allocation would be "premature." But he said that NTIA would work with the federal agencies, the FCC and the amateur community to determine whether "some future accommodation" for amateurs at 5 MHz would be possible. That could include limitations on power or emission types, a reduction in the size of the proposed band, the use of discrete frequencies or geographical restrictions, he suggested.

Imlay said that while he and the ARRL Board of Directors have been long aware of the concerns registered by the US Coast Guard and the US Department of Justice with the NTIA's Interdepartment Radio Advisory Committee (IRAC), he was surprised by the tone of the NTIA letter. "This is a lot worse than we were told to

expect," he said, noting that the FCC had cancelled a meeting to discuss issues expressed by the NTIA several months ago and went forward with its proposal despite the NTIA's concerns.

New Section Manager

John Dyer, AE5B

Effective October 8, I will assume the duties of Section Manager for the West Texas Section of the ARRL. Lee Kitchens, N5YBW, has resigned from his position because of increased demands on his time. His son passed away recently and Lee has been forced to devote a major part of his time to the son's business. Our thanks to Lee for his leadership and we all wish him well as he and his family work their way through a difficult period in their lives.

Music on a LASER Beam

Kent West, KC5ENO

About a week ago I got it into my head that it should be relatively easy to send audio signals over a cheap LASER (hereafter referred to as "laser") pointer. Then just a couple of days later I stumbled onto the website <http://www.scitoys.com/scitoys/scitoys/light/light.html#stereograms>. This is a fascinating website.

One of the items at this website is a simple laser communicator. Within a couple of days, my co-workers and I were scrabbling together amplified computer speakers and patch cords and solar panels and battery holders. As it turned out, the laser pointer we had acquired was very weak. We suspect that we overloaded it with voltage in some of our early tests. This was to prove a fatal flaw.

I had a small solar panel as part of a little kit purchased from Hobby Lobby which had a small electric motor with a spinning disk. The disk had long since been broken, but I had no reason to suspect that the solar panel wasn't well. Nonetheless, as I was carrying it to the office, I had it connected to the motor and kept trying to keep the panel in the sunshine, but with some difficulty because of cloudiness. Still, there was

enough light that the motor should have turned; it didn't. I wonder-ed if the solar panel had "died" on me.

We used jumper wires with alligator clips to connect the terminals in the laser pointer to our 4.5v battery supply loaded with recently charged NiCads. However, it turns out that several of the NiCads were faulty. So we scrounged up some fresh AA's and used those, and got a good bright glow from our laser pointer.

We then clipped the amplified computer speakers' inputs to the solar panel, and we could hear clicks when-ever we shined the laser light on it. This looked promising. Still, the volume was pretty low.

For our transmitter, we decided to use an iPod, which is an Apple brand of MP3 player. It was at about this time that I realized we needed an audio transformer that I had failed to bring, so off to home I went to see if I could scrounge one up. I thought I had a loose one laying around, but as it turned out, I had to dig out an old 200-in-1 Electronic Projects kit I had. By the time I got back, the laser pointer had lost its strength. I suspect that while I was gone, one of the other guys decided to fill in the fourth slot for the AA's to see if that helped the volume, and in so doing damaged the laser pointer, but that's just speculation on my part. Still, we pressed onward.

We hooked up the iPod to the audio transformer and to the laser pointer and the battery pack, and started playing a tune. We aimed the laser at our solar panel connected to the amplified speakers, and . . . nothing. Apparently the laser or the solar panel (or both) was just too weak to do the job.

But, not only did the 200-in-1 Electronic Projects kit have an audio transformer, it also had a CDS cell, which is a light-sensitive resistor. Ahh. Another route to our destination!

So we rewired our receiver to use the CDS cell instead of the solar panel (which required some more batteries – none of our pagers were working by now, of course). Then we aimed the laser pointer at the CDS cell, and . . . barely, we heard music. We brought the laser pointer closer, and the music got louder. We brought the laser pointer up almost touching the CDS cell, and got

the max volume we could attain, which was little better than a headset's volume when turned up high. Hoping that the output jack on the speakers was an amplified output, we daisy chained it to another set of amplified speakers; that didn't help anything.

At this point, deciding that inferior parts lead to inferior results, we gave up on our little project. Still, we had proven to ourselves that it was possible to send audio signals over a laser beam, and we felt pretty good about that.

Now, can we send data . . . ?

Voice over IP

Kent West, KC5ENO

Last month I mentioned that ACU was experimenting with Voice Over IP (VoIP), a technology that allows telephone transmissions over standard ethernet networks. An advantage to such a setup is that no longer would organizations need to run both ethernet cables and phone cables in the walls of their buildings; they could just run ethernet. Another advantage is that your computer can plug into the back of your phone, and thus saves even more cabling. The convergence of the two technologies also could lead to more creative uses, such as customized phone rings, voice changers, computer-controlled dialing, everything a telemarketer could possibly want in order to irritate you and me during supper. The technology has a lot of promise.

Unfortunately, the audio quality was really bad. Everyone one who got a test unit was begging within a week to have their old phones back. Also, when you tried to dial a number, there was a lag time before the first number indicated that it had been accepted, which enticed you to dial it again, resulting in a bad number dialed.

The network guys say that the network traffic needed to be shaped for the system to work well, but that other priorities were preventing the traffic shaping from being accomplished. Accordingly, the experiment has been put on hold for now, and we'll try again when the system can be tweaked to work as it should. Until then, it's nice to have my old phone capability back.

Key City Amateur Radio Club Income and Expense Report **ACU Certifies as StormReady**
 September 9, 2002

<i>Regular Account:</i>	Balance Forward	\$665.72
	Income	
	Expenses	38.90
	Balance on Hand	626.82
<i>Hamfest Account:</i>	Balance Forward	1,784.56
	Balance on Hand	1,784.56
Amount Needed to Balance		2,411.38
Total Amount on Hand:		
Checking		2,400.50
Coins		1.88
Cash		9.00
Total		\$2,411.38

** Itemized Expenses (Regular Account)

Checking Fee (August)	15.00
Southwestern Bell (Sept)	18.90
ARRL Balance Maynor	5.00
Total	38.90

Peggy A. Richard, KA4UPA
 Treasurer, Key City Amateur Radio Club

John Dyer, AE5B

Congratulations to Bill Shaw, KJ5DX, and the team at Abilene Christian University on being honored by the National Weather Service today in a ceremony on the ACU campus. The University is now a part of a very small group of communities that have been certified as StormReady. Good job guys.

Tidbits

Kent West, KC5ENO

Need a new computer? Walmart.com is offering an 800MHz PC with Lindows (a variant of Linux) for \$200. Or for another \$100, you can get it with WindowsXP HomeEdition. The XP version also includes a 56K modem (both have a 10/100 NIC), but does not include all the extra software that the Lindows box ships with. They also both have 128MB RAM, 10GB drive, AC '97 audio, 52x CD-ROM drive, and a one year warranty.

Some Riley-isms. According to FCC Special Counsel Riley Hollingsworth, good radio amateur practice means not acting like an idiot just because you were stepped on, and operating so that if a neighbor, niece or nephew or news reporter hears you, that person will be impressed with Amateur Radio. More Riley-isms can be found on the web.

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