Key Klix

The Monthly Newsletter of the Meriden ARC February 2011

Annual Home Brew / Tune Up Meeting

The February 24th activity meeting will be a combination tune up night and home brew night. Bring your HT's down and have our own John Blevins K1VDF take a look to be sure that it is functioning properly. He can also let you know just how much power it's actually putting out.

This year we are combining the tune up and home brew night. Got a new home brew ham radio project you'd like to share? Bring it to this month's activity meeting. If it's too big to transport, bring a picture or give a short report about your project. Or share with us a new-found tip or helpful idea you've recently implemented in your shack. Remember, simple things are sometimes the best.

Come share your ideas and see what others have done as well. You may find yourself inspired. Don't miss this one. February 24, 7:30 PM.

Guest Speaker Big Hit

Last month's guest speaker (Andy Poniros) and presentation was entertaining and informative. Andy is a NASA Solar System Ambassador Volunteer. His presentation included many very beautiful pictures and lots of information not generally discussed in the public sector.

For example, did you know that the deep space probes use very little fuel? If NASA were to launch one of those probes with enough fuel aboard to get out of our solar system, the rocket would need to carry a incredible amount of fuel. Andy showed diagrams of the path these probes take which included “sling shotting” past some of the planets. By carefully calculating the precise time that all the planets lined up for the probe's journey, scientists could use the gravity of the planet to give it a little speed boost. When a probe left Earth's orbit, it was moving at a about 2 miles a second. By the time it left our solar system that speed could be upped to 12 - 14 miles a second. Every fly-by of a celestial object increased the over-all speed.

In This Issue

The only fuel on board, was a small amount used by the probe's thruster rockets to make course corrections. Not needing all that fuel reduced the over-weight of the rocket, thus allowing more scientific equipment to be in the payload.

And of course these deep space probes can not use solar cells. Once the probe gets out beyond Mars, there isn't enough solar energy to be had. A short discussion about these power plants designed to run for many years (atomic power) was very interesting.

A little known fact was that NASA had some hard decisions to make after the Challenger disaster. Everyone was suddenly worried about a failed launch of a payload with an atomic power plant as it's source of energy. And that power plant possibly crashing and contaminating a large area on earth was a big concern.

It wasn't until a couple years later that they resumed launching atomic powered deep space probes.

Andy also presented pictures of the deep space probe communications network. That consisted of many dish antennas situated all around the globe. This enabled scientists here on earth to have 24/7 communications with any of the probes at any moment.

The show and tell was great and well received. Many thanks to Andy and to Bob, KB1FYL who arranged to have Andy visit our club.

- Key Klix Staff

Upcoming Contests

February 14-18
School Club Roundup http://www.arrl.org/school-club-roundup

February 19-20
International DX Contest - CW http://www.arrl.org/arrl-dx

March 5-6
International DX Contest – Phone http://www.arrl.org/arrl-dx

April 17
Rookie Roundup - SSB http://www.arrl.org/rookie-roundup

Braving the Snow!

When Rich, WA1TRY arrived at the OEM building this past activity meeting he was greeted with an unplowed parking lot. The Senior Citizen's parking lot was only half finished. But thanks to the Town of Wallingford Public Works crew, they got the OEM and SCOW parking lot plowed with a few minutes to spare before the January activity meeting started.

Of course we had to dig our way through the drifts to the front door. Many thanks to Mark, K1PU and Jim, N1ZN who shoveled the handicapped ramp. And many thanks to the members who braved the snowy mess to attend the meeting.

- Key Klix Staff

VOACAP Online

Professional-grade high-frequency (3-30 MHz) point-to-point propagation predictions

Thanks to Kenth W1JKP for passing this information to us.. All you DXers out there should check this out. It's a point to point propagation prediction utility. You can set any point in the world as your receiving station and any other point in the world from whence the signal is transmitting.

The graphics have been updated to provide a nice, clean user interface. You can drag and drop the origination / destination points.

http://www.voacap.com/prediction.html

Revisiting Packet Radio

Maybe it's time we dusted off those TNCs and tried a little VHF Packet Radio. Ed, WA1MVJ reports a lot of activity on the W1EDH-4 BBS. (145.09 mHz)

Or stop by Ed's packet mail box and say hello,

(WA1MVJ-4 mail box)

Long-Delayed Echoes on 7 MHz

A German radio amateur has reported the phenomenon known as Long-Delayed Echoes while operating on 40 meters November 27 during the 2010 CQ World-Wide CW DX Contest.

Peter Brogl, DK6NP, of Furth, Germany, at first "thought someone was playing tricks on me," the Space Weather website reported, when he heard a carbon copy of his signal 46 seconds later. So he changed frequency. After re-sending his callsign, he heard the echo again.

A geomagnetic storm was occurring at the time. For more than an hour, Brogl heard the echoes, allowing him time to make several recordings:

http://brogl.net/Audio/

Long-Delayed Echoes were first reported in 1927 by Norwegian civil engineer Jorgen Hals "but happen rarely and are not really understood," according to a report on Amateur Radio Newsline. "Most researchers believe that unusual propagation conditions linked to solar storms may be one of many possible explanations. Others can be seen on the Shlionskiy Long-Delayed Echo page:

http://bit.ly/e8DsdE

(ARN, Space Weather, Southgate)

FCC - Changes to Vanity and Club Call Sign Rules

A Report and Order released by the Federal Communications Commission in early November makes "both major and minor changes to the vanity and club call sign programs," and finalizes "a Notice of Proposed Rulemaking (WT Docket 09-209) issued a year ago," writes Frederick O. Maia, W5YI, in his Washington Readout column in January's CQ Amateur Radio magazine.

Areas impacted by the ruling include the license cancelation procedure, availability of a deceased licensee's call sign, exceptions to the two-year waiting period, ineligible applicants, club station trustees, limits on club station licenses, available call signs, restrictions on call sign availability, renewal fees, and some minor "non-substantive amendments to the amateur service rules," writes W5YI.

Antenna Restrictions? Check This Out !

Here is how to get on the air, without a radio. I've come across “QsoNet” on the web recently. This looks to be a good solution for hams with severe antenna restrictions. And all you need is your FCC license, some software, and an Internet connection. There is a 90 day free trial available after which you will need to register and pay a small yearly fee. It's only 32 bucks. That is for 365 days of hamming. Sound interesting? Read On ...

QsoNet uses the internet to receive audio signals from a ham radio transmitting station, then instantly reflects the audio back to all stations listening on that frequency. There is no RF. Everything is done over the internet. The result is a simulated ionosphere for worldwide amateur radio communication. Stations can use voice, CW (Morse code), PSK and FSK modulation.

QsoNet works with dialup, DSL and cable internet connections. There is no need to configure router ports. The network consists of an array of internet servers which provide streaming voip audio between stations. After installing transceiver software, QsoNet stations are connected to a central server by a single, outbound TCP connection.

Below is a picture of the CQ100 virtual radio. Features are page 5.

Features and Specifications:

* Just works right “out of the box” with no need to configure router ports.
  This means it can be used from hotel rooms, airports, public libraries, internet cafes, etc.
* Covers 5 HF radio bands - 80, 40, 20, 15 and 10 meter bands.
* Computer microphone provides voice modulation.
* Includes built in CW keyer. Simply type on the keyboard to send perfect CW.
* Spectrum graph shows radio activity within a settable sweep range of 50, 100, 200 and 500 kHz.
* Call sign, handle, QTH, etc are automatically displayed for current transmitting station.
* Keyboard “Hot Keys” provide a simple interface for vision impaired operators.
* “Round-Table” QSO's are possible because any frequency may have a large number of listeners.

Watch for a detailed review in an upcoming Key Klix.

de WA1TRY

Station Activities

Lot's to report on the status of the club station. I got the TS-690 repositioned so we could hook up the computer interface. If you haven't been following, I cleverly mounted each HF rig close to the center console to allow easy access to the tuner and/or amp. It was too close as there wasn't enough room to plug in the rig control din plug (which is on the side of the rig). So that's been fixed and we now have computer control for the HF stations.

Speaking of the station and the work I've been doing there, I had a dream a couple nights ago. I dreamed that the roof at the OEM building fell down. The town then decided to wait until the Spring thaw to clean up the pile of brick and wood.

The dream goes on. The Spring thaw comes and the town is just getting around to demolishing what's left of the old building. They start digging and they hear something. Buried under a ton of rubble, they hear a faint noise.

Suddenly they hear, “***W1KKF Repeater .. Time out cleared***” and find me with a half eaten Chili dog in one hand and the 2-meter rig mic in the other.

And so, (in my dream) the last thing I do with my dying breath is time out the repeater. What a way to go. Of course it was just a dream. However, I'm now hesitant to do any more work at the shack ...at least until the old building survives the Winter. <grin>

Back to the real world. I'm thinking of using that extra space to the left of the radio, to mount a few jacks. Two 1/4 phone jacks, one for a straight key and another for a set of paddles. Everyone has the preference to keys and of course will always have the club's keys and paddles available. This will allow the guys to plug in their favorite key/paddles without having to mess around at the back of the radio. I'm also going to mount the keyer in the rack space above the radio. There it will be out of the way, and yet still have all the controls within easy reach. I'd love to mount both keyers that way, but it'll be a logistical nightmare with the voice keyer. The mic jack on the radio is on the left front of the OEM's Kenwood TS-450 and the club's TS-690.
Normally we would plug the mic into the voice keyer and the output of the voice keyer back into the rig's mic jack. That's okay, but it ends up with cables all over the operating position.

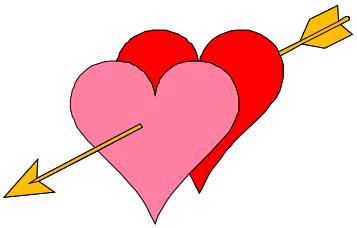
To rack mount the voice keyer we would also have to find a way to get a mic cable from the back of the mounted voice keyer to the front of the radio panel and then into the radio mic jack.

I've got a way to do this. But the result would be having a long mic cable stretching down from above the radio to the desk mic. It could become a nuisance as it would be in the way of the radio's controls.

The key to everything being easily removed, unplugged or serviced will be having a nice organized wiring harness for each rig. Care has to be taken to insure we don't have any RF getting into the audio circuits.

I've decided to have the two radios dedicated to a setup that is unique to each of them. The radio on the right side of the console will be the club TS-690. That will directly feed the linear amp. And the output of the amp will feed antenna tuner. From the tuner there will a Watt/SWR meter that runs to the patch panel. At the patch panel we can hook up the final rig's output to any antenna or even a dummy load for extended testing.

The OEM's TS-450 has a built in antenna tuner, so that will go directly to the antenna patch panel. It will be set as the bare foot station and won't use the amplifier.



The extra console to the left of the station will house a rack mounted PC. Above the antenna patch panel will be the VHF / UHF radios.

By the time this month's activity meeting rolls around, I hope to also have the articulated monitor mount ready to go.

de WA1TRY SAM

ARRL DX Contest Anyone?

There was some interest in the club operating the station for the ARRL DX phone contest. Bob, KB1FYL will be calling for operators. I will make the shack available for as long as the ops want to operate. I don't know if we are going to do a CW effort or not. So far the only guys interested are myself and Bill, W1KKF. The CW contest is February 19 - 20, while the phone version is March 5 - 6.

If anyone has any ideas regarding contest logging please let us know. I believe the N1MM logging software will fit nicely with our club. It's simple and yet has a lot of features. I just re-visited it recently and was impressed how it has been updated and improved. It's been a couple years since I've last used it. Information is available here::

http://www.n1mm.com/

A while back Paul K1SEZ gave a great presentation on the very popular DX LABs suite. That would be an all encompassing program for the club to adopt as it's in house logging software. It's got “everything” anyone would want and could handle both normal day to day logging as well as all the popular contest loggers.

Another popular rig control and logging application is Ham Radio Deluxe. Of the three, I believe the N1MM would be the easiest to set up and operate. But that's just my opinion. We will have plenty of computer storage space, so it wouldn't be difficult to install all three and then have the membership try them out. I have to say that DX Labs is impressive. And Ham Radio Deluxe is pretty solid. But I went through the complete installation and setup for all three programs. N1MM took about 15 minutes to get it installed. It's pretty intuitive in the installation area as well. The other two programs required a lot of “installing” and configuration.

What do YOU use for logging ??

Club Information Page

Meriden ARC PO Box 583 Meriden, CT 06450

MARC 2009 Officers

President - John Bee	N1GNV	N1GNV@arrl.net
Vice President - Jim Savage	N1ZN	james.savage@snet.net
Secretary - Dan Murphy	W1DMM	w1dmm@arrl.net
Treasurer - Jonathan Winslow	KB1HCC	
Station Activities Manager - Rich Aubin	WA1TRY	wa1try@cox.net

Committees

Key Klix Editor - Rich Aubin - WA1TRY WA1TRY@COX.NET
Key Klix Staff - Dan Murphy - W1DMM, John Bee - N1GNV
Program & Entertainment - Bob Stephens KB1CIW
Club QSL Manager - Bob Kaczor - KE1AU
VE/Education - Volunteer needed
Membership - "Haggie" Winslow - KB1HCC
Castle Craig - Al Kaiser - N1API
Interference & Technical - Rich Aubin WA1TRY

Club Nets

28.275 mhz	CW Slow Net	Mondays	7:00pm (NC W1JKP)
50.175 mhz	VHF SSB	Mondays	8:00 pm (NC N1ZN & W1SKP)
28.375mhz	HF SSB	Tuesdays	8:00 pm (NC K1VDF)
147.36 R	FM	Tuesdays	7:00 8:00 pm (NC KB1CIW)

Membership/ Dues: regular $15 Senior $10 Family Member $5.00
Business Meetings - 2nd Thursday Activity Meetings - 4th Thursday of the month.
All meetings start at 7:30 PM

Location of meetings: Wallingford Office of Emergency Management
284 Washington Street, Wallingford, Connecticut
(next to the Wallingford Senior Citizen Center)

Web site: http://www.meridenarc.org/ BBS/Forum: http://www.w1nrg.com/forum/

Business Meeting
February 10

Activity Meeting
February 24

Tune Up Nite
Home brew show & tell

Check club forums for new information

Meriden Amateur Radio Club
Post Office Box 583
Meriden, CT 06450

First Class