

GARS MOUTH

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WWW.GARS.NET

*Welcome to the Gainesville Amateur Radio Society's
Newsletter*

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EVENTS AND ACTIVITIES COORDINATOR: NEEDED

ROBERT GUERTIN W1GLV

RON SMITH KJ4HBF

PRESIDENT'S CORNER

This will be like double mint gum, you get two President's Letters for the price of one.

PRESIDENTS CORNER

September 2014

I have had numerous good reports on the September program; "JT-9: QRP

With the Magic Multiplied", which was presented by GARS member Gary Liljegren W4GAL. Gary has without a doubt generated interest within the club with his demonstration.

Our technical advisor, Shannon K4GLM reports that the recent problems associated with the 444.925 repeater have been corrected. The machine took a trip to Shannon's bench at home for the needed repairs due to the inability to accomplish repairs at the site due to the extreme amount of RF interference at the site. The repeater is due to be re-installed at the site soon.

Please watch for details concerning the upcoming GARS Fall Picnic on October 25th, 2014. It is to be held at the Alachua County Park on the west side of NW 43rd St, just south of TV20.

73,

Pete Winters W4GHP

GARS President

GARSPresident14@gmail.com

And for the Month of October

PRESIDENTS CORNER

October 2014

With the official arrival of the fall season, the GARS calendar of activities and events also enters a busy season.

The club picnic is scheduled in October, Veterans Day Fly-In; and nominations and election of officers for 2015 in November, Operation Santa Delivery; and our annual Christmas Banquet/Awards Dinner in December. Please keep these events in mind as we progress through the remainder of the year. Details as to dates and times are to be posted well in advance on the GARS Yahoo Group site and also in the GARSMouth.

Speaking of events, the annual picnic will be held on October 25th, 2014 at the Alachua County Park on NW 43rd St, just south of TV20. At present we need volunteers to do a number of things. Please contact one of the officers or a board member to lend your support.

The time is also drawing near for nominations of Ham of the Year nominations. More information will be forthcoming early in October as to be procedures involved for this coveted award.

Best of 73's,

Pete Winters W4GHP

GARS President

GARSPresident14@gmail.com

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Send edits, comments, articles to
garseditor@gmail.com

Paper is short this month, not much to report, hopefully you guys will send some stuff in, things have been hectic up here in Suwannee so time is kinda short and we are still plugging away. 73 de ke4pwe

You might not think it's important, but your input is wanted for this newsletter. Please send articles of interest, links, and buy, sell or trade to garseditor@gmail.com

FAMOUS WORDS

"If the facts don't fit the theory, change the facts."

— Albert Einstein

CLUB HAPPENINGS

Hi,

Hello all GARS members. It's the time of the year to think about = recognizing two of our outstanding members. I'm talking about the "Ham of the Year" and the "Rusty Drainpipe" awards. Please take a moment and = email me with your choice for Ham of the Year. Based in part on your = votes and the reason for your nomination, the committee will select = this nears winners. The runner up becomes the winner of the Rusty = Drainpipe. Please submit your entries to:

DavidBirge@yahoo.com

Submission by the end of November is necessary in order to have the = winners presented at the December Holiday dinner meeting.

73,

David Birge
wb9UYK
Chair -HOTY

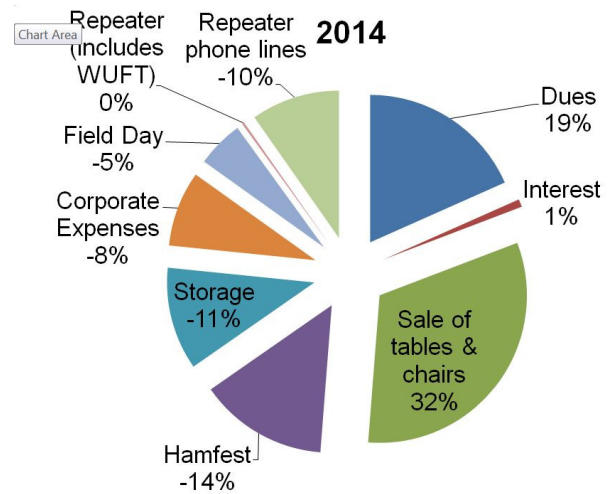
VE REPORT

On Saturday, September 27th, the Gator Amateur Radio Club (GARC) offered a one-day Technician review and test on the UF campus. All 24 people earned new Technician licenses.

The next regularly scheduled ARRL license test session will be at Santa Fe College on Saturday, October 4th, 2014. The test will begin at 1:00pm in room P-160. For information on the test, registration or questions contact Allan West by email <wa4jd@cookie.org> or call [352-328-2359](tel:352-328-2359).

There will be a one-day Technician review and test at the Tioga Community Center on Saturday, October 25th, 2014. The review will run from 9:00am - 3:00pm, and a test will follow at 3:00pm. The review is free, and open to anyone in the community.

For information on the one-day review, registration or questions contact Gary Liljegen by email at <gary@w4gal.net>



GARS MEETING MINUTES

None to report at the time of the publishing of this paper. Please review at the general meeting.

GARS FINANCES

Your membership dues are due as of January 1, and you will be out of membership if you lapse after March 31, so please renew and support your club.

\$\$\$

To be able to provide activities such as the club picnic, Christmas party, the club "repeaters", food and materials for Field Day, Hamfest, etc. it takes \$\$\$.

Support GARS by paying your dues, the dues are due January 1 of every year, and so see Susan Tipton at the general meeting before the meeting starts. Even give a little more for the activities that make GARS and active association. A small note that even the donut money at the meetings, supports the GARS, so have a cup and a bit of sugar and spice and some camaraderie and top off that donation cup.

GARS financial report will be provided at the general meeting and will not be published in the GARS Mouth.

UPCOMING EVENTS

10/04/2014 | [OPARC HAMFEST TAILGATE](#)

Location: Jacksonville, FL
Type: ARRL Hamfest
Sponsor: Orange Park Amateur Radio Club
Website: <http://oparc.net/hamfest>

10/10/2014 | [FLORIDA STATE CONVENTION \(MELBOURNE HAMFEST\)](#)

Location: Melbourne, FL
Type: ARRL Convention
Sponsor: Platinum Coast Amateur Radio Society
Website: <http://www.pcars.org>

11/08/2014 | [SPARCFEST](#)

Location: Pinellas Park, FL
Type: ARRL Hamfest
Sponsor: St. Petersburg Amateur Radio Club
Website: <http://www.sparc-club.org>

11/15/2014 | [FREE FLEA](#)

Location: Coral Gables, FL
Type: ARRL Hamfest
Sponsor: Flamingo Net ARC / University of Miami ARC
Website: <http://www.flamingonet.8m.net>

12/12/2014 | [WEST CENTRAL FLORIDA SECTION CONVENTION \(TAMPA BAY HAMFEST\)](#)

Location: Plant City, FL
Type: ARRL Convention
Sponsor: Florida Gulf Coast Amateur Radio Council

Website: <http://tampabayhamfest.org>

To become an Amateur Radio operator, check out this website link. <http://www.arrl.org/what-is-ham-radio>

SARS NEWS

Florida's SARnet Helps DOT with Tech Challenge: A Win-Win

From an Amateur Radio user's perspective, the Statewide Amateur Radio network (SARnet) is simply a network of independently operated, amateur, UHF, voice-radio repeaters in Florida that are linked together. In truth though, it is much more than that. SARnet is a story of the Amateur Radio community coming together to help a state government agency overcome a technological challenge. The state agency in question is the Florida Department of Transportation (FDOT).

The FDOT is an agency charged with maintaining roadways in the state of Florida, keeping them safe for the traveling public. To meet its charge, the FDOT deploys personnel that work along these roadways. To communicate, these workers use VHF low-band analog voice radios that operate in the mid 40 MHz range, just below the amateur 6 meter band. The agency operates thousands of radios through dozens of repeater sites all over the state, 24 hours a day, 365 days a year. The repeaters are networked together in regional districts on a statewide Intelligent Transportation System (ITS) microwave and fiber network. In an effort to continue to keep this workforce safe, while at the same time improving resource utilization and situational awareness for both crews and management, the FDOT has been working to provide interoperability between the regions of this voice radio network, the capital in Tallahassee, and other public safety agencies. This sort of improvement requires technology and any new technology needs testing before it can be deployed. This is where the Amateur Radio community comes in.

Recently, the FDOT needed to begin investigating connecting their VHF repeaters together using a

relatively new Internet Protocol (IP) technology called multicast. This powerful technology makes it possible for multiple radio sites to be connected together while using only the network bandwidth of one conversation. Traditional voice over IP network implementations put one copy of the conversation on the network for each radio site, using more and more bandwidth with each site that is added. The problem with starting this investigation of multicast was that the FDOT voice radio network is a live network. Testing a new complex technology on a live network would be, at best, frustrating for the work crews on the roadways, and at worst, downright dangerous since it would likely result in radio system outages.

Fortunately, many of the principal FDOT personnel responsible for operating the statewide ITS microwave network and supporting the FDOT VHF voice radio network are also Amateur Radio operators. They decided to enlist a few Amateur Radio repeater trustees to let them network their repeaters together over the FDOT statewide ITS microwave network. The idea was that the FDOT could create an ongoing test bed for this new multicast network technology using live Amateur Radio traffic, and in return the amateur community would get a new exciting resource to use for communicating long distances in and around the state of Florida.

The win-win has so far been a great success. In fact, the test bed created by the SARnet has provided numerous insights for the FDOT into how to test, operate, maintain, troubleshoot, and upgrade an advanced technology like multicast when it is being used on such a large scale. There have been several challenging issues that the FDOT, working side by side with the radio amateurs, have been able to solve. Most recently, a new repeater was linked to SARnet in Madison, Florida. Initial reports, and even recordings, from local hams indicated that the SARnet traffic was cutting in and out, with short audio blanking segments. The evidence provided by the amateurs suggested a network issue was to blame and indeed upon investigation the problem turned out to be an intermittent microwave network card that had not been detected previously while running typical IP traffic through the network.

For the amateurs who use SARnet, the experience is proving to be a lot of fun, but it has also become more than that. The potential for SARnet to support public event, disaster response and emergency communications is impressive. Consider that SARnet rides on a statewide network of hardened microwave tower and fiber sites and NOT the Internet. All of these sites have battery systems and automatic generators with extended fuel supplies that can run for many days, if not weeks. Consider also that the bandwidth used by SARnet on this network is dedicated. That means when the Internet begins to experience outages during a severe weather event here in Florida and most Internet-based amateur repeater linking protocols, such as Echolink, Allstar, D-Star, and WIRES, are having difficulty maintaining connections, SARnet will still be fully operational.

The amateur disaster response community has already embraced SARnet. The Duval County, Florida EOC conducts a weekly check-in net on SARnet on Fridays at 9AM, where late check-ins are welcome. In addition, the National Hurricane Center has expressed an interest in using SARnet from their location on the Florida International University Campus in Miami.

Users on SARnet Need No Special Equipment

Returning to the Amateur Radio user's perspective, it turns out working with SARnet is really easy. If you have a nearby UHF repeater that is connected to SARnet then when you access it, like you would do any normal day, you bring up that repeater, but you also bring up all of the other SARnet UHF repeaters simultaneously around the state. There is nothing different, equipment-wise or even frequency-wise, that you as a user of your local repeater need to do to access SARnet. It does help to say where you are though during a contact so other hams on SARnet will know if you are local or not.

The planning behind SARnet is largely complete and the construction is underway. Twelve SARnet repeaters are connected as of early September with another 4-6 planning to be connected before the end of the year. Ultimately the network will likely consist of approximately 25-30 repeaters, covering most of coastal regions and some interior areas along interstates. The size of the network was chosen by FDOT as being representative of how they will deploy the technology on their own voice radio network. If you are interested in the technical details behind how the repeaters are connected on SARnet you will find them on the SARnet website, along with frequencies, approximate repeater locations, and a rough coverage map. The website is www.sarnetfl.com.

It is important to note that the FDOT views the SARnet as an ongoing test-bed that will continue to be maintained for the foreseeable future. This network of local repeaters is providing an incredible resource to the state, allowing the FDOT to test technology without jeopardizing their own live radio network, and at the same time conducting those tests with very little cost and time involved. As the FDOT continues to investigate multicast and other new technologies that help it support its communication responsibilities in the state of Florida, it is hoped the Amateur Radio community will continue to offer its repeaters for use with SARnet in return for the opportunity to advance the art of radio just a little bit and enjoy some technological advantages along the way. -- Brian Kopp, PH.D., KC5LPA, Jacksonville, Florida; University of North Florida Electrical Engineering

ARE YOU SIX AND UP?

GM to ZL on 6m CW!

In April this year a truly momentous contact took place. Stu, MA0BSM and Paul ZL4AX exchanged CW reports on the 6m band. Stu was beaming north looking for aurora whilst Paul was at the tail end of a tremendous opening to the north Pacific and was also beaming north. Signals were weak and understandably it took several attempts to complete the exchange. At one point Stu turned his beam to the south-east believing he may be working a DL rather than a ZL but fortunately turned back to the north in time to complete the QSO. Even more notable was that both stations were using 5

element Yagi antennas. This is believed to be the first UK to New Zealand contact on 6m via a terrestrial path.

SHACK OF THE MONTH



K3IEC is the call-sign for the CUMBERLAND AMATEUR RADIO CLUB

CLUB HAPPENINGS CONT.

Did you know we have a new Facebook Page?

Like Us on Facebook.

<https://www.facebook.com/GainesvilleAmateurRadioSociety>



LINK'S OF THE MONTH

Interesting link for golden age of radio

<http://ricehistorycorner.com/2014/01/27/donald-norgaard-and-his-television-1934/>

Donald Norgaard and his Television, 1934

TECHNICAL CORNER

FOX DELTA KITS

<http://www.foxdelta.com/>

TRADE IT OR SHE WILL TRADE YOU

If you have anything that you would like to sell, trade, donate or give away, email garseditor@gmail.com and we will put the item in here. Please understand that this will be restricted to only Amateur Radio related items only, no property, vehicles or other large items that would have radio attached, just use common sense.

Listing Post by KE4PWE:

The time comes when you have to relocate or have to clean out that shack for many reasons and while equipment always is able to be resold or repurposed, there are always parts and projects that are in boxes and even books for radio and electronics that you have to throw away or leave behind. I want all your broken radios, parts, projects and books. Don't throw them away, throw them at me, well not literally but you know what I mean. Email me or call.

Ke4pwe@gmail.com or 352-672-5674. Restoration of radios from 1930s to 1970s is my favorite thing to do, and I hate seeing stuff throw away if it can be repurposed or reused to fix these classic radios again.

Thanks to the members that have donated to my museum of sorts, hopefully next year or the year after I will have a place to show off the wonders of real radio, and yes real radios glow in the dark.

CREDITS

ARRL, NASA, NPR, NBC, CBS, AMQRP, Washington Post, Latina Style, CQ Six, oldphotos.blogspot.com All photos are copy write under their respective owners and cannot be duplicated or distributed without express permission of their owners.

REMINDERS

Don't forget the Suwannee Tailgate

Coming up on May 24 at 8am, FREE of charge, 7am for tailgate sellers. Look at Hamfests above for more information.

<http://www.suwanneearc.org/html/2014gate.html>

Talkin frequency of 145.410 Mhz, - 600, PL 123 or 145.270Mhz -600, PL 123

At the end of the newspaper I try to find something old and interesting to finish the paper out with. We have to remember where we came from in radio and look above to see where we are going.

Radio Canada International



Look at the rolling cabinets and those meters, that was the day of real radio.

<http://hawkins.pair.com/rci1.shtml>

Thank you all for reading and see you next time.

This GARS Newsletter was brought to you in part by Carnation Condensed Milk, George Burns, and Gracie Allen.

Producers: Neutralized Triode

Editors: Phil KE4PWE and Lilly No Call Just Yet

Stage Hands: Cap Resistor

Mike Grip: "D" One O'Four

Set and Lighting Manager: Tom Foolery

Script and Controller: Frequent Followers Consortium

No Bits and Bytes were abused in the writing of this Newsletter and all zero's and one's are able to be recycled under the Clean Air Act. Hope you enjoyed it and we will see you next month. 73 and 88