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SPARC Years



GAP



**St. Petersburg Amateur Radio Club**  
**P.O. Box 2217 St. Petersburg, Fl. 333731**  
**April May June 2008**



**Words from our President will be in the next newsletter.**

**ARRL FIELD DAY June 28 - June 29**

**From Richard, N4BUA. Here is an article from the eQSL web site. A few of us use eQSL and enjoy it very much. It would be great if many more would use it.**

**eQSL - The Final Courtesy by Dave Morris, N5UP, Founder and Webmaster, eQSL.cc February 5, 2001**

The world's first and only eQSL exchange centre, [www.eQSL.cc](http://www.eQSL.cc), started the year 2001 with a bang. Only a few weeks earlier, on the first of December, it had blown through the 1 million card mark, and now 2 million cards were in the central database. But instead of slowing down, the rate increased as thousands of eQSL cards were uploaded every hour. The eQSL.cc site was launched in April of 2000, and included about 1500 hams who had been part of an earlier experiment in an electronic QSL card exchange. The "big" idea was that eQSLs should not be sent around from person to person via e-mail, but should be available at any time through a web-based exchange system and a central database. Other concepts using e-mail or by posting one stock QSL card on a web page and calling it an eQSL were not satisfactory, because security could not be guaranteed, e-mail addresses had to be looked up, and the sender had to laboriously design his QSL card using graphic design software.

So, we used our 25 years of software development and database design experience to develop a site where each user could guarantee his identity with a scanned image of his ham license, could lay out an eQSL card design using simple point-and-click forms, and could upload logbooks either one-at-a-time, or by uploading an entire ADIF format log file at once. The concept is such a breakthrough, we have patents pending on its technology.

To retrieve one of these eQSL cards, the recipient only need enter the callsign, date, and band of the QSO he wants to retrieve, and if the other ham has entered that QSO into the system, up pops the complete eQSL card, ready for printing on a local printer. Furthermore, if the recipient registers his callsign with us, he can get a listing of all incoming eQSLs, and can just point and click to print each card received. Sending a reciprocal card back is a matter of clicking a button!

Apparently, most everyone else thinks this is the right way to do it, too. Another six weeks after hitting the 2 million card mark, it appears the number of cards will double again to 4 million.

Many of the members of the eQSL.cc site are using stock images for their eQSL card designs. But since it is possible to upload a graphic image to use on one's card, there are many custom cards online as well. Users are signing up from over 180 countries all over the world. In many places, a stack of 500 traditional QSL cards might well cost the average ham operator and entire year's salary. On eQSL.cc, 500 beautiful full-color cards can be sent for free!

In an era when "dot coms" are failing left and right, it is noteworthy that the eQSL.cc site, which is supported almost entirely through voluntary donations, has been operating in the black since Day One. Since the site runs virtually without any human intervention, the only ongoing expenses are for development of new features, and for continually increasing disk space, processor power, and bandwidth. A small amount goes to answering the questions and suggestions that come into the webmaster's office by e-mail. In most cases, replies are returned within the same day.

Continued on last page

# *Getting the Most from your HT!*

By Neil Lauritsen W4NHL

If repeaters are unavailable after a disaster and you are limited to simplex operation, a portable transceiver with its original flexible antenna is inadequate for emergency communications. I started with a "handy-talkie" or "HT" when I first got my ham license. Today, I recommend that new operators buy 2-meter mobile transceivers. They cost no more than a portable. Today's equipment is very compact, rugged and reliable. For portable operation, carry the mobile transceiver in a briefcase with a 17ah-gel cell battery and telescoping 1/2 wave or magnetic-mount mobile antenna. Include 25 feet or more of coax to get the antenna up high, away from people. This arrangement may not work for everyone. Therefore, if all you have is a portable transceiver, the following will help you to make the most of it!

An "HT" makes perfectly good sense for:

- Anyone who doesn't drive;
- Commuters who use public transportation;
- Controlling a mobile radio as a cross-band repeater
- As a spare, a backup or loaner.

The National Institute of Science and Technology tested Public Safety "high-band" VHF and amateur 2-meter antennas. Flexible antennas commonly used on portable transceivers have negative gain compared to a quarter wave whip held at face level. This means that 5-watt portable VHF with stock antenna has an effective radiated power of only 1-watt. Placing the portable on your belt produces -20db of attenuation, reducing EIRP to 50 milliwatts!

UHF results are no better... "Rubber ducky" antennas are rubber covered helical springs, which are intended to withstand some rough handling, but they are not indestructible. Flexible antennas used on California fire lines for several weeks showed a 60% failure rate. Flexible antennas should be replaced annually or as soon as they show ANY apparent kinks, cracks, abrasion or other wear to visual inspection.

An effective expedient to improve a flexible antenna is to attach a counterpoise (19.5" long for the 2-meter band, or 6.5" for the 70 cm band) of stranded wire, crimped and soldered to a battery clip or ring terminal which will fit over the antenna connector. Reinforce the soldered connection with heat shrink to resist flex. When attached to the outer collar of the BNC connector or the antenna shield, the counterpoise prevents transmitted RF from coupling with your body. This enables it to perform like a center-fed dipole, instead of an "end-fed dummy load!" The main lobe of the radiation pattern can be "aimed" by, grasping and pointing the end of the counterpoise in the direction where you need a stronger signal.

Some after-market and home-made antennas perform much better than the standard helical "rubber duck." A J-pole antenna constructed of 300-ohm twin-lead rolls up and fits into your pocket. When thrown up in a tree, it increases both height and gain. Full-sized, flexible 1/4 wave and telescoping 2-wave antennas work very well. A quarter wave provides unity gain when used with a counterpoise and held at face level. This represents a 5 dB improvement over a stock flexible antenna, because most of the effective signal is radiated. If operating from a vehicle, connect your portable to a magnetic mount mobile antenna to provide a clear RF path outside the vehicle. This overcomes the substantial attenuation, which results from operating a portable unit from inside a metal vehicle. Always carry suitable adapters so that you can connect your portable transceiver to an outside base or mobile antenna, when one is readily available.

In marginal operating locations a telescoping, half-wave is much better, because it provides the same unity gain without a ground plane that a 1/4 wave antenna does when used with a ground plane. A 2-wave antenna can be pulled up into a tree, dangled out a window, attached to a window pane with suction cups, or be used bicycle or motorcycle mobile, or in city driving on a window clip mount. A telescoping half-wave increases useable simplex range of a typical 5 watt, 2-meter portable from about a mile with the stock flexible antenna to 3 miles or more, depending upon terrain. Adding a counterpoise to an efficient antenna enables a portable unit to keep in reliable contact within 5 miles of an EOC or base station equipped with an efficient antenna elevated on a tower.

Telescoping antennas are more fragile and work best when stationary or in the open, avoiding side impacts or rough handling. Avoid prolonged mobile use of telescoping antennas on window clip mounts at highway speed, because excessive flexing loosens their internal electrical connections. Never collapse a telescoping antenna by whacking it down with the palm of your hand. Gently pull it down with your fingers. If you note any wobbling or looseness, replace the antenna.

Flexible antennas are safer when working in close quarters around people and are more durable when walking through dense vegetation for wildfire suppression or search and rescue operations. They better for dual-band transceivers because telescoping antennas are usually mono-band. Dual-band flexible antennas approximate a 1/4 wave on 2 meters and a 5/8 wave on 70 cm, are optimized for one band and may resonate poorly on the other. How efficient a particular antenna is can be determined only by testing. A telescoping half-wave, or half-wave, dual-band-mobile antenna with magnetic mount, will work well either with or without a ground plane, and offer the best bang for the buck.

Any emergency antenna for your portable transceiver is rated to safely handle up to 25 watts of RF output. This enables it to be used as an expedient antenna for a mobile radio in portable operation, or to permit use of an external "brick" amplifier with the portable transceiver.

A magnetic mount works best on a car, but an improvised ground plane can almost always be found around the home or office, such as a metal filing cabinet, metal trash can, cookie sheet, rain gutter, refrigerator, window air conditioning unit, balcony railing or any other large metal object. On boats, motorcycles, fiberglass truck caps or wooden balcony railings use a half-wave antenna, which does not require a ground plane.

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## BATTERY POWER BASICS

A common error of new ESF-2 operators is failure to plan to carry enough battery power. Always carry at least one spare charged NiCd pack and AA battery case, which enables you to keep operating when the power goes off, if you can't recharge your NiCd pack. Cycle and recharge dry NiCd packs monthly. Write the recharge date on a strip of tape on each pack. In cold weather keep NiCd packs warm by keeping them in an inside coat pocket and not exposed on your belt.

An adapter cord to power your transceiver from an auto cigarette lighter plug or a gel cell battery is needed for extended operation. Cigarette lighter cords are often unreliable because auto sockets aren't the best conductors, due to contamination and size variations, which cause the plug to vibrate loose. As an alternate power source, you should still have one, because they are ubiquitous and in a pinch, much better than nothing!

Portable power packs such as Quantum are excellent, but expensive. We encourage our operators to make their own using 12-volt gel cell batteries obtained from local hospitals. Sealed lead-acid (SLA) batteries are used to power emergency lighting, alarm systems, medical instruments and computer backup power supplies. They are replaced on a fixed schedule, usually before they are worn out. Because SLA batteries require disposal as hazardous waste unless recycled or reused, a hospital donation to your CERT or ARES / RACES group reduces their disposal cost. Contact your local hospital and explain how SLA batteries they discard can support auxiliary emergency communications. Donated SLA batteries must be inspected, recharged and load-tested. Any 12V batteries with an open circuit voltage (Voc ) of 12.8V or more are tested immediately and distributed for reissue, if OK. Batteries with Voc <12.8V are connected in parallel across a regulated 13.8V power supply. Those which are not accepting charge after 4 hours are discarded. Total charge time and current should not exceed 140% of battery capacity. Gel cells should never be recharged at over 14V due to gassing.

Reject batteries if their internal resistance exceeds an ohm, as determined by voltage drop divided by the current load in amps. Good batteries suitable for re-issue should not drop below 11.7V under a test load approximating AC, @ their amp-hour capacity, for 30 seconds or AC/5" for one minute. A simple test load for small gel cells up to 20ah is a 50w, 12V-marine/RV bulb or automotive droplight. This equals about 3.8A, approximating a mobile radio on low power 5w transmit or a portable 2-meter hand held, plus a laptop PC and packet TNC. Using two bulbs and 'Y' adapter simulates mobile or brick amp at 25w RF output. This is a good test load for batteries to 30amp-hours. In a good battery, voltage drop stabilizes quickly, does not fall below 11.5V under load, and recovers quickly when the test load is removed.

## STANDARD POWER CORD CONNECTORS

Auxiliary power cords could be made using twin lead, red-black AWG14 or AWG16 zip cord with Anderson PowerPole connectors which are attached to the rig. It is recommended that you rig two sets of cords directly to your car battery to power your portable or mobile radio, and laptop computer, if you will send data via packet radio to your EOC. Splice type fuse holders onto both leads, as close to the battery as possible. If all you have is a portable transceiver, the above information will help to ensure that you can provide an adequate signal for reliable emergency communications. Doing so is vitally necessary to enable your volunteer disaster unit to complete its mission efficiently and safely. In these times, we need to be prepared for any contingency. We need to carry a personal "kit" with us whenever we leave home. In addition to an HT with spare batteries and a rollup J pole. Other items include a small rugged 2 AA cell flashlight. In addition equip yourself with a cellular telephone with a spare battery, plus a disposable zinc air battery. The zinc air batteries are available at a lot of retail outlets for the specific cell phone you have. Now all of us don't subscribe to cellular service, the FCC has mandated that any cellular phone, regardless can dial 911. So dig up an old cell phone (with a good battery) and throw that in you kit bag. Don't pick a phone that is specific to certain operators, i.e. Sprint, Nextel, etc. Stick with an old 800 MHz phone if you can find one that will operate on the original 800 MHz cell networks.

Finally, be safe.

## Station of Richard N4BUA



Last month I published this Station Picture as Leslie's WA4EEZ . It was actually Richards Station and I want to sincerely apologize for that misdeed. So here is Richard and his fantastic station at home.

# Upcoming Events

Chester Tailgate 7AM till ...when everyone leaves

**2008**

**12 July (SPARC)**

**13 September (WORMHOLE)**

**8 November (American Victory Ship)**

Chester Electronic Supply

311 Missouri Ave. N. Largo, FL 33770 Ph 727-585-4736

## SPARC Meetings

*First Friday every month, 7:30 pm*

*and*

*\*Testing: Third Tuesday every month 6:30 pm*

*at the Red Cross Bldg,*

*818 Fourth Street North*

*St. Petersburg*

*Some Members meet for Breakfast*

*Every Saturday, 7:00 am*

*At the*

*Biff Burger 49th St. & 38th Ave. N. St. Pete*

*\*contact Connie K4TBZ at 727-528-0071*

### SPARC Purpose:

1. To further and promote the social benefits and technical advancement of the radio arts.

2. To acquire, organize, establish and maintain facilities for social and emergency communication, both mobile and stationary.

3. To assist and cooperate with authorized agencies in any emergency of local, state or national scope.

4. To further fellowship among radio amateurs, potential radio amateurs and other parties interested in amateur radio.



## ELMERS

Specialty	Name	Call	Contact Information
Digital, CW, and Antennas	Dave Trewin	KR4U	trewins@aol.com
PSK	Wendy Kincaid	KB1AF	kb1af@yahoo.com
RTTY, Repeaters	Ron Hall	KP2N	kp2n@arrl.net
HF, 10-10	Leslie Johnson	WA4EEZ	wa4eez@verizon.net

# Contest/Operating Event Corner

## Next possible W4GAC Contest

### ANARTS WW RTTY June 14–June 15

#### **W4GAC 2008 Florida QSO Party claimed score**

QSO's CW 573 — SSB 260 — Mults 115      Claimed score 323,380

W4GAC score for 2007 263,976

W4GAC score for 2006 334,420

We did better this year than 2007. We had more CW contacts but fewer on SSB. Discovered that the SSB transceiver was not sounding good at all and power output was falling off. Hooked up the old reliable

Kenwood TS-450S and we were back in business.

Band conditions were very poor for us on Saturday but improved by Sunday.

Got some action on 15 Meters Sunday afternoon.

The CW crew came through with 68 more contacts than last year while the phone guys and gal rate dropped off. However, between the two modes we came up with around 20 mults more than last year. Mults are the name of the game. The old mult bell was busy.

Thanks to everyone who came out to operate or log. Newcomers Chuck, Terry, and Pete did a good job and we look forward to having you back in 2009.



Florida QSO Party at SPARC station –Pictures taken by Peter Secrist WB2SUN



Not everyone agrees that eQSLing is the way to go. Some people like to get their hands on that stiff cardboard with the exotic stamps that spent months in transit from the jungles of some island that is only above water for 3 weeks out of the year. Others are bothered that some amateur organizations still have "no electronic transmission" clauses in the rule books for their awards. Others still are spooked by the privacy issues that this interconnected new world brings up. But it's very difficult to argue - as the saying goes - with success. And 4 million cards is success by anyone's measure. At the present growth rate (with the number of eQSLs doubling every month), eQSL.cc could be home to virtually all of the world's amateur radio operators within a couple of years. Contest "big guns" will be able to "QSL 100%" within a matter of minutes, saving hundreds of hours of time and thousands of dollars in the process. DXpeditions will be able to "QSL 100%" on the spot, whether it be from that desert island with a dial-up Internet connection, or when the crew gets back to "civilization". It's just a quick log file upload, and they are done! And eQSLs, unlike their traditional cardboard counterparts, can be verified through automated computer interfaces by amateur organizations wanting to validate award and contest submissions. The presence of a scanned license image on file for each user goes way beyond the simplistic checking that is possible using the older traditional QSL cards.

And now eQSL.cc is also a favorite site for SWLs, because users can identify themselves as either licensed amateur operator, or SWL. The eQSL cards between SWLs and hams are automatically configured to contain proper SWL phrasing, making their lives easier and saving them tons of money. Complex systems shouldn't be designed in a vacuum, so we have assembled a capable group of hams and SWLs into an Advisory Board. Among these advisors are users with satellite and DX experience, contesting backgrounds, and international origins, as well as technology gurus and people with long-term operating histories. This group discusses current issues and future development plans for the site on a daily basis. Just another feature of the interconnected world we have entered as the 21st Century dawns.

There were nay-sayers when SSB first began to push CW aside. There were those who thought packet radio was just a short-lived fad. Others thought we shouldn't be wasting money on amateur satellites. And some people think eQSLs are "not natural". But for tens of thousands of hams and SWLs who upload their entire logbooks nightly in an effort to live up to the "100% QSL" promise of amateur radio, the final courtesy of a QSO is an eQSL.

## Club Officers for 2008

<u>President</u>	Leslie Johnson WA4EEZ <a href="mailto:president@sparc-club.org">president@sparc-club.org</a>	<u>Net Manager</u>	Pete Secrist WB2SUN <a href="mailto:netmanager@sparc-club.org">netmanager@sparc-club.org</a>
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### Board Members

Linda Saunders KI4RV	Bill Zulas WZ4GW <a href="mailto:boardmember2@sparc-club.org">boardmember2@sparc-club.org</a>
Richard Stephens N4BUA	<a href="mailto:boardmember1@sparc-club.org">boardmember1@sparc-club.org</a>