



KEY KLIX

Amateur Radio Club of Savannah

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The next meeting of the Amateur Radio Club of Savannah will be a dinner meeting, Tuesday, September 12, 7:00pm, at the Fire Mountain Restaurant on Stephenson Ave. (Fire Mountain was formerly Ryan's.) I hope to see everyone there!!!!

The 146.37/97 repeater power amplifier has been repaired. Kurt Hoffman, N4CVF, installed the repaired amp back at the repeater site, and replaced some bad cable connectors. The 37/97 repeater sounds much better with the amp back online. Thanks Kurt!!!!

AN INTRODUCTION TO THE SIX-METER BAND – PART II

By Andy Blackburn, WD4AFY

Six-meter operators do a lot of waiting, because of the unpredictable nature of the band. To help determine when the band is open, six-meter enthusiasts around the world have put a fairly extensive suite of beacons on the air. In the U.S., beacons occupy the region between 50.060 and 50.080 MHz. In other countries, beacons are spread more widely throughout the band.

It's a good idea to pick a few beacons in different directions from your QTH and check their frequencies regularly. During an opening, go through the beacon

subband and note which ones you're receiving, then watch for them later.

Unlike the HF bands, six meters is much more rigidly structured in terms of what frequencies are used for what purposes.

Ironically, six meters, available to all no-code Techs, is one of only two ham bands (2 meters is the other) with a CW-only subband which excludes all data transmissions. That CW-only subband runs from 50.0 to 50.1 MHz.

Almost all weak-signal activity on six occurs between 50.1 and 50.4 MHz.

Calling frequencies are used extensively. From 50.100 to 50.125 is a "DX Window," in which domestic QSOs are discouraged. The DX calling frequency is 50.110. The traditional domestic calling frequency is 50.125. However, there has been a movement recently to extend the DX window to 50.130 and make 50.200 the new domestic calling frequency. This movement has been precipitated by the extension of six-meter privileges to hams in new countries around the world, and the associated increase in the number of DX stations on the air. Such

band plans are, of course, voluntary, but are observed widely by the six-meter community.

The recommended CW calling frequency is 50.090, but you will often hear CW CQs on 50.125, too. Under the old band plan, you would hear many stations on 50.125 as the band opened up, then, as more stations discovered the opening, activity would spread upward in frequency, reaching 50.3 or 50.4 during a good opening. It seems likely that, while the new, expanded DX window probably will catch on, many operators will take some time to "let go" of the old, familiar 50.125. It is recommended that you monitor 50.125 and 50.200, as well as 50.090, during an opening. If the opening seems real good, start checking 50.110 for DX stations, too.

Most domestic weak-signal contacts on six are SSB, but in recent years, there has been an increase in CW activity. As mentioned above, the CW activity often is intermingled freely among the SSB signals. It would be nice to see

more CW activity down around 50.090, and use the CW-exclusive subband to better advantage.

The first thing you will be asked when you make a contact on six is, "what's your grid square?" While still little known among HF operators, the Maidenhead grid-square system, formalized at a VHF meeting in Britain in 1980 and adopted world-wide by the International Amateur Radio Union in 1985, is almost universally used as a locator system by VHF, UHF and microwave operators. The Maidenhead system divides the world into 32,400 squares, each 2 degrees of longitude by 1 degree of latitude. There are larger "fields" of 100 locator squares each, and each square is divided into smaller "subsquares." For most purposes, knowing your 2 degree by 1 degree square is sufficient.

VHF operators collect grid squares like HF operators collect countries. Many are working toward the ARRL's VHF-UHF Century Club (VUCC) award, which requires

confirmed contacts with 100 grid squares. During VHF contests, some enthusiasts go on "Gridexpeditions," to put rare grid squares on the air, while others become "rovers" to operate from several grids during the contest. Just as states or countries serve as multipliers for HF-contest scores, grid squares are the typical multipliers for VHF-contest scores.

If you work much on six meters at all, you'll probably want to add your grid square to the information on your QSL card. (Hams living near Savannah are in either EM91 or EM92.)

Six meters can provide you with a lot of excitement and new operating challenges. In addition to offering new awards and contests, this band can expand your experience with different propagation modes. Hams who experience world-wide communications on "six," soon get the "bug" to communicate with the world. This can also serve as an encouragement to a Technician Class licensee to upgrade.

DEAD ELECTRICAL DUDES #3

This Month's Stiff: Major Edwin Howard Armstrong

Entered Mortal Coil: 18 December 1890

Assumed Room Temperature: 31 January 1954



Major Armstrong: Inventor, Ham, and Patriot

We radio amateurs (and the rest of the world, for that matter), owe a great debt of gratitude to this month's Dead Electrical Dude, Major Edwin Howard Armstrong. Howard's inventions form the basis for all modern radio communications devices. Indeed, the list of Howard's accomplishments is impressive. Unfortunately, Howard spent the latter part of his life in endless patent battles. In many people's opinion, including this writer's, these battles ultimately drove Howard to commit suicide. An in-depth discussion of the myriad legal wranglings is beyond the scope of this

discussion. However, we will touch briefly on the landmarks of this pioneer's career and his troubles:

1913: Armstrong modified DeForest's triode amplifier tube circuit by feeding the output into the input, resulting in amplification of a radio signal thousands of times. If driven still further, the circuit acted as an oscillator. Armstrong termed this method of amplification as *regeneration*. DeForest sued in court and ultimately won via a faulty ruling after 20 years. However, the scientific community generally regards Armstrong as the

true inventor of regeneration.

1917: Armstrong joined the Army's Signal Corps in World War I as a Captain, ultimately being promoted to the rank of Major. Armstrong developed the *superheterodyne radio circuit* as a solution to the problem of intercepting German tactical communications on the battlefield. Armstrong applied for a patent of the revolutionary superheterodyne circuit in 1919. All modern radio receivers utilize some version of this circuit.

1933: Armstrong applied for and was granted four

patents on circuits that established wideband high fidelity *frequency modulation*, or FM. RCA and other manufacturers began using many of Armstrong's circuits after World War II without permission, resulting in an unbroken string of patent infringement litigation.

1954: Armstrong, in the pit of despair after being left by his wife following a violent argument, commits suicide by walking out of a 13th story window.

1967: Marion Armstrong, after many years of litigation, wins a legal settlement against Motorola. This was the last lawsuit. Marion and her lawyers won every suit that was pending after Edwin's death.

It is interesting to note that Armstrong was quite a fixture at RCA prior to the start of his patent troubles. Armstrong once climbed a radio tower on the corporate headquarters building and did handstands on the large globe on top in order to impress Marion; he loved heights and was temporarily banned from the property by the head of RCA, David Sarnoff. Sarnoff was annoyed at what he termed "damn fool" stunts. Sarnoff befriended Armstrong, and had earlier introduced the inventor to his secretary, Marion, whom Armstrong would later marry. Little did Armstrong know that Sarnoff would in later

years figuratively stick a knife in his back for the sake of corporate profits and convenience.

References: *Empire of the Air: The Men Who Made Radio*. If you can get a copy of this book, do so, as it is fascinating reading

Note: This article is one of many written by Philip Neidlinger, KA4KOE, and posted online on EHAM. This is copyrighted material and permission has been granted to the ARCS, to reprint this article.

STRAYS

It was a year ago that a catastrophic hurricane named Katrina terrorized the Louisiana and Mississippi coastline. Many Ham Radio operators, including some from our area, volunteered to assist in the aftermath and recovery.

Remember, ham radio is not only a hobby, but it exists to provide a public service.

49th Jamboree on the Air October 21-22, 2006...JOTA is an annual event in which about 500,000 Scouts

and Guides all over the world make contact with each other by means of amateur radio. It is a real Jamboree during which Scouting experiences are exchanged and ideas are shared, thus contributing to the world brotherhood of Scouting The JOTA is a world-wide event. Units may operate for 48 hours or any part thereof, from Saturday 00.00 h until Sunday 24.00 h local time.

Locally, area amateur radio operators plan to take part in this event. Contact Philip Neidlinger, KA4KOE, if you wish to participate.

Maine Gov John E. Baldacci may now be the only sitting state chief executive holding an Amateur Radio license. Following up on an effort begun a few years ago, Baldacci took and passed his Technician license test September 6, and the FCC issued his new call sign, KB1NXP.

WANTED: Full-time Key Klix Editor

2006 SHELBY HAMFEST

By Andy Blackburn, WD4AFY



The Shelby Hamfest in Shelby, NC, is always held on Labor Day weekend. Nick-named the “Grand-Daddy” of them all, you can almost find anything at this hamfest, if you look hard enough. Held on a fairground, there are acres and acres and acres of dealers and fleamarket.

Since you can camp on the hamfest grounds, Beth Ann and I took our camper and set up on the fairgrounds along with our good friend Jack Norris, WB4TWX. Together we set up our flea market area under a blue canopy. Jack and myself sold “odds and ends” of ham equipment, while my XYL Beth Ann sold some of her surplus jewelry, a stereo, purses, kitchenware, a tent, and Disney videotapes.

The top-left picture shows a picture of a man and his pet goat checking out our wares. The other 3 photos show only a limited scope of the hamfest. Along with the many vendors outdoors, there are also numerous vendors in sheltered facilities as well.

That’s it for this month’s Key Klix. If you have any articles to submit for the next issue, please send them to andy@g-net.net Deadline for articles is October 2.



AMATEUR RADIO CLUB OF SAVANNAH



ARCS Elected Officers for 2006:

President: Doug Rowland, KF4EFP, jdrowland@comcast.net
Vice President: Kayton Smith, W4KTN, kayton3@comcast.net
Secretary: Andy Blackburn, WD4AFY, (912) 238-4676, andy@g-net.net
Treasurer: David Delamater, K4DJD, (912) 412-4109, k4djd@comcast.net
Activities Manager: Philip Neidlinger, KA4KOE, ka4koe@arrl.net
Trustee: Kurt Hoffman, N4CVF, (912) 356-8581, n4cvf@arrl.net

Appointed Positions for 2006:

ARCS Webmaster: Andy Blackburn, WD4AFY, (912) 238-4676, andy@g-net.net
Key Klix Newsletter Editor: Andy Blackburn, WD4AFY, andy@g-net.net

The Amateur Radio Club of Savannah, was founded in 1938, and is a non-profit 501(c)(3)(a) organization dedicated to:

- (a) Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.
- (b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.
- (c) Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communication and technical phases of the art.
- (d) Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.
- (e) Continuation and extension of the amateur's unique ability to enhance international goodwill.