



# KEY KLIX

Amateur Radio Club of Savannah

October 2007

Volume 3

Issue 10

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## Announcements:

### ARCS Meeting:

The next meeting of the Amateur Radio Club of Savannah will be held, Tuesday, October 9, 2007 7:30pm, at Memorial Health University Center, in the Hoskins Building Classroom "5." The Hoskins building is on the South Side of the hospital near Parking Garage "C." Enter the Hoskins Building on the side that faces the Parking Garage "C."

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**Effingham County ARES:** Effingham County ARES (ECARES) is looking for volunteers to assist in providing emergency communications in the event of a disaster. You don't have to reside in Effingham County to participate and all amateurs (any license class) are welcome. If you are interested in joining the organization please contact Todd Hargrave KD6RYQ, EC Effingham County at [kd6ryq@arrl.net](mailto:kd6ryq@arrl.net) or simply show up for one of our meetings the first Tuesday of every month at 6 p.m. The meetings are located at EMS Station #2 close to the intersection of Highway 17 and Blue Jay Rd. in Guyton. Also, please join us for the ARES SkyWarn Net held every Tuesday night at 9 p.m. on the 146.970 repeater.

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**SET:** The 2007 Simulated Emergency Test will be held on October 6-7, 2007. The Effingham County ARES will plan a simulated emergency and are looking for volunteers to assist in passing emergency traffic via digital and voice modes. Please contact KD6RYQ at [kd6ryq@arrl.net](mailto:kd6ryq@arrl.net) for more information.

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**JOTA:** The Jamboree On The Air (JOTA.) event will be held at the Mighty 8th Air Force Museum on Saturday, October 20th, 2007. The museum opens at 9 AM, but volunteers will need to get there early to help set up a shelter tent, tables, antennas, etc. We will operate from approximately 10 AM till the museum closes at 5 PM. We will close down operations sooner if attendance drops off.

This is an officially sanctioned Coastal Empire Council of the Boy Scouts event, and not just a couple of packs. The event is being publicized via the official BSA website for this area, with flyers distributed, etc. Attendance is uncertain, due to other events that weekend, but we have planned on approximately 100 scouts visiting throughout the day.

If you get bored playing radio, you can look at vintage, cool, WW2 aircraft.

CONTACT: Philip Neidlinger, KA4KOE, JOTA Event Co-Chair, Pack 527, Richmond Hill, GA, Webelos Den Leader [ka4koe@arrl.net](mailto:ka4koe@arrl.net)

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## **Savannah-Chatham Metropolitan PD Goes Digital**

Mac McCormick, KF4LMT [kf4lmt@comcast.net](mailto:kf4lmt@comcast.net)

On September 24 and 25, 2007, the Savannah Chatham Metropolitan Police Department (SCMPD) transitioned from using analog talkgroups on the Chatham-Effingham Trunked Repeater System to digital talkgroups on the same system. The move was well publicized in the press; I saw stories on WTOC (whose headline proclaimed that SCMPD was having their "scanners" reprogrammed!) and in the Savannah Morning News.

SCMPD's switch to digital talkgroups has generated many questions about the system and scanners that can be used to monitor the new talkgroups.

- Have the system frequencies changed?
- Have the talkgroup IDs changed?
- Will my scanner monitor the digital talkgroups?
- What kind of scanner do I need to monitor the digital talkgroups?

The system frequencies have not changed at this point. At some time within the next year (probably), the system frequencies will change because of the Nextel funded rebanding process. When the system is rebanded the frequencies will change, the result of which will be the inability of older trunk tracking scanners to monitor the entire system (more on this later).

The talkgroup IDs have changed. Instead of the old 32#### and 33#### talkgroups that SCMPD was using, they are now using 53#### talkgroups. According to the RadioReference website ([www.radioreference.com](http://www.radioreference.com)) the new SCMPD talkgroups are:

53264 - A1 PCT 1 Car-to-Car  
53280 - B1 PCT 1 Primary  
53296 - C1 PCT 1 Records  
53312 - A2 PCT 2 Car-to-Car  
53328 - B2 PCT 2 Primary  
53344 - C2 PCT 2 Records  
53360 - A3 PCT 3 Car-to-Car  
53376 - B3 PCT 3 Primary  
53392 - C3 PCT 3 Records  
53408 - A4 PCT 4 Car-to-Car  
53424 - B4 PCT 4 Primary  
53440 - C4 PCT 4 Records  
53456 - A5 PCT 5/6 Car-to-Car  
53472 - B5 PCT 5/6 Primary and Thunderbolt Police  
53488 - C5 PCT 5/6 Records and Thunderbolt Police  
53664 - Westside Municipalities Dispatch

Unless you have a P25 Digital capable scanner, you won't be able to monitor these talkgroups. The older analog only scanners such as the Uniden BC235XLT, BC245XLT, BC780XLT, and BC895XLT and the Radio Shack PRO 2050, 2051, 2052, 2053, 2055, 2066, 2067, 90, 91, 92, 93, 94, 95, and 97 will not be able to monitor the systems. Current scanners that can monitor the digital talkgroups are:

Uniden BC250D  
Uniden BC785D  
Uniden BC296D  
Uniden BC796D  
Uniden BCD396T

Uniden BCD996T  
Radio Shack PRO-96  
Radio Shack PRO-2096  
Radio Shack PSR-500 (available Oct. 2007?)  
Radio Shack PSR-500 (available Oct. 2007?)

Keep in mind that the whole system has not gone digital. Fire/EMS users, public works users, and many of the smaller police departments are still using analog talkgroups. Your analog trunk tracking scanners aren't completely useless, you just won't be able to monitor SCMPD and some of the other law enforcement agencies using digital talkgroups.

Do you remember the rebanding process I mentioned earlier? When considering which digital scanner to purchase, you definitely need to take rebanding into account. Radios such as the Uniden BC250D and BC785D will not support rebanding. While they can probably be found used for much cheaper than the other scanners on the list, they will not monitor the system once it is rebanded. The rest of the scanners in that list will support rebanding according to their manufacturers. I would also bypass the BCD296 and the BCD796 because their memories are not as flexible as the last six on the list. The memory organization methods used by the newer Radio Shack and Uniden scanners make more efficient use of available memory, allowing you to program more into the radio.

I've also been asked about programming software. Personally, I prefer Butel's ARC software ([www.butel.nl](http://www.butel.nl)). I use versions of their software to program a BC250D, BC796D, and a BCD396T. I have always been pleased with software and suggest it when asked. The 396 and 996 versions of the ARC software can interface with RadioReference (provided you have a membership) and can program systems into your scanner from RadioReference's system profile data. This is a very nice function that I've used for traveling to areas where I'm not very familiar with the radio systems.

More information on P25 Digital modulation can be found in "P25 Digital: What Is It and Why Do I Want a P25 Capable Scanner" in the June 2007 edition of [Key Klix](#).

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## The Origins of Ham Radio Lingo

*"Ham: a poor operator. A 'plug.'"*

That's the definition of the word given in G. M. Dodge's *The Telegraph Instructor* even before radio. The definition has never changed in wire telegraphy. The first wireless operators were landline telegraphers who left their offices to go to sea or to man the coastal stations. They brought with them their language and much of the tradition of their older profession.

In those early days, spark was king and every station occupied the same wavelength-or, more accurately perhaps, every station occupied the whole spectrum with its broad spark signal. Government stations, ships, coastal stations and the increasingly numerous amateur operators all competed for time and signal supremacy in each other's receivers. Many of the amateur stations were very powerful. Two amateurs, working each other across town, could effectively jam all the other operations in the area. When this happened, frustrated commercial operators would call the ship whose weaker signals had been blotted out by amateurs and say "SRI OM THOSE #&\$!@ HAMS ARE JAMMING YOU."

Amateurs, possibly unfamiliar with the real meaning of the term, picked it up and applied it to themselves in true "Yankee Doodle" fashion and wore it with pride. As the years advanced, the original meaning has completely disappeared.

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The "Q" Code came into being internationally in 1912 to overcome the language problems involved in communications by radio among ships and shore stations of all countries. The original list of 50 adopted by international agreement in London contain many which are still familiar to amateur operators-QRN, QRM, QSO, the traffic operator's QRK, QSY and QRV - are now well past the half-century mark in continuous usage. QSL still has the official 1912 definition despite the changed informal usages it is subjected to in amateur parlance.

The QN signals for amateur net operation were introduced in the late 1930s by W1UE (now W4IA) to lighten the burdens of net control operators.

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The telegraph call CQ was born on the English Telegraph nearly a century ago as a signal meaning "All stations. A notification to all postal telegraph offices to receive the message." Its meaning was close to the present meanings of QNC and QST. Like many other telegraph terms which originated on the landlines, CQ was brought over into radio and used as a general call to all ships by the Marconi Company. Other companies used KA until the London Convention of 1912, which adopted CQ as the international general call or "attention" signal. CQ still means, literally, "attention" but in amateur radio its meaning is perhaps more accurately described by Thomas Raddell who compared it to yelling "Hey, Mac!" down a drain pipe.

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The traditional expression "73" goes right back to the beginning of the landline telegraph days. It is found in some of the earliest editions of the numerical codes , each with a different definition, but each with the same idea in mind--it indicated that the end, or signature, was coining up. But there are no data to prove that any of these were used.

The first authentic use of 73 is in the publication *The National Telegraph Review and Operators' Guide*, first published in April 1857. At that time, 73 meant "My love to you!" Succeeding issues of this publication continued to use this definition of the term. Curiously enough, some of the other numerals then used have the same definition now that they had then, but within a short time, the use of 73 began to change.

In the National Telegraph Convention, the numeral was changed from the Valentine-type sentiment to a vague sign of fraternalism. Here, 73 was a greeting, a friendly "word" between operators and it was so used on all wires.

In 1859, the Western Union Company set up the standard "92 Code". A list of numerals from one to 92 was compiled to indicate a series of prepared phrases for use by the operators on the wires. Here, in the 92 Code, 73 changes from a fraternal sign to a very flowery "accept my compliments," which was in keeping with the florid language of that era.

Over the years from 1859 to 1900, the many manuals of telegraphy show variations of this meaning. Dodge's *The Telegraph Instructor* shows it merely as "compliments." *The Twentieth Century Manual of Railway and Commercial Telegraphy* defines it two ways, one

listing as "my compliments to you;" but in the glossary of abbreviations it is merely "compliments." Theodore A. Edison's *Telegraphy Self-Taught* shows a return to "accept my compliments." By 1908, however, a later edition of the Dodge Manual gives us today's definition of "best regards" with a backward look at the older meaning in another part of the work where it also lists it as "compliments."

"Best regards" has remained ever since as the "put-it-down-in-black-and-white" meaning of 73 but it has acquired overtones of much warmer meaning. Today, amateurs use it more in the manner that James Reid had intended that it be used --a "friendly word between operators."

*Various Sources including the ARRL Web Page*

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**FOR SALE:** MFJ 493 Super Menu driven keyer (never used).\$75.....2 position coax switch....\$10      Contact: Andy Blackburn, WD4AFY, 912 238-4676  
E-mail: [andy@g-net.net](mailto:andy@g-net.net)

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## **STRAYS**

**WANTED:** Articles for the Key Klix

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## TRIVIA QUIZ

**Even though they are out of the Amateur Radio business (for now), what product is Heath (aka Heathkit) still making - or reduced to, depending on your point of view? (Answer Below)**

- A. Light Bulbs**
- B. Electronic Cabinets**
- C. Security Locks**
- D. Prescription Bottles**

That's it for this month's Key Klix. Thanks go to everyone who submitted material for this issue of Key Klix. If you have any articles, items for swap or sale, etc., to submit for the next issue, please send them to [andy@g-net.net](mailto:andy@g-net.net) Deadline for articles is November 1.

73 de Andy Blackburn, WD4AFY, Editor

Trivia Quiz Answer: **A. Light Bulbs**



## AMATEUR RADIO CLUB OF SAVANNAH



### **ARCS Elected Officers for 2007:**

President: Doug Rowland, KF4EFP, (912) 826-7199, [jdrowland@windstream.net](mailto:jdrowland@windstream.net)

Vice President: Mac McCormick III, KF4LMT, [kf4lmt@comcast.net](mailto:kf4lmt@comcast.net)

Secretary: Andy Blackburn, WD4AFY, (912) 238-4676, [andy@g-net.net](mailto:andy@g-net.net)

Treasurer: David Delamater, K4DJD, [k4djd@comcast.net](mailto:k4djd@comcast.net)

Activities Manager: Philip Neidlinger, KA4KOE, [ka4koe@arrl.net](mailto:ka4koe@arrl.net)

Trustee: Kurt Hoffman, N4CVF, [n4cvf@arrl.net](mailto:n4cvf@arrl.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.