



KEY KLIX

Amateur Radio Club of Savannah

January 2007

Volume 3

Issue 1

The Amateur Radio Club of Savannah Annual Banquet is to be held at **Skyler's Restaurant, located at, 225 E. Bay Street, Thursday, January 11, 2007.** We will begin to assemble at 6:30pm, and order our meals around 6:45pm. Each person is responsible for his or her meal and gratuity. There will be door prizes and the "Amateur of the Year" will be recognized. (The Annual Banquet is being held in lieu of the regular January meeting.)

For those who want more information about Skyler's check the below link:

<http://www.skylersrestaurant.com>

To RSVP, please contact Andy Blackburn via Email: andy@g-net.net or Phone: (912) 238-4676 If you find that you cannot make it to the banquet (and have already sent in your commitment to attend,) please let me know of your "cancellation" at least 24hours in advance. ARCS will be held accountable for "no-shows."

Andy Blackburn, Secretary / Key Klix Editor
Amateur Radio Club of Savannah

FCC to Drop Morse Testing for All Amateur License Classes

Dec.16, 2006 - The FCC has spoken!!

In an historic move, the FCC has acted to drop the Morse code requirement for all Amateur Radio license classes. The Commission adopted a Report and Order (R&O) in WT Docket 05-235. In a break from typical practice, the FCC only issued a public notice at or about the close of business Dec. 16 and not the actual Report and Order, so some details -- including the effective date of the R&O -- remain uncertain. The public notice is located at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-269012A1.pdf.

Also, the FCC also adopted an Order on Reconsideration, in WT Docket 04-140 - the "omnibus" proceeding -- agreeing to modify the Amateur Radio rules in response to an ARRL request to accommodate automatically controlled narrowband digital stations on 80 meters in the wake of rule changes that became effective Dec. 16 at

12:01 AM Eastern Time. The Commission said it would carve out the 3585 to 3600 kHz frequency segment for such operations. Prior to the long-awaited action on the Morse code issue, Amateur Radio applicants for General and higher class licenses had to pass a 5 WPM Morse code test to operate on HF. The Commission said the Dec. 16 R&O eliminates that requirement for General and Amateur Extra applicants.

"This change eliminates an unnecessary regulatory burden that may discourage current Amateur Radio operators from advancing their skills and participating more fully in the benefits of Amateur Radio," the FCC said. The ARRL had asked the FCC to retain the 5 WPM for Amateur Extra class applicants only. The FCC proposed earlier to drop the requirement across the board, however, and it held to that decision in the Dec. 16 R&O.

Perhaps more important, the FCC's action in WT Docket 05-235 appears to put all Technician licensees on an equal footing. Once the R&O goes into effect, holders of Technician class licenses will have equivalent HF privileges, whether or not

they've passed the 5 WPM Element 1 Morse examination. The FCC said the R&O in the Morse code docket would eliminate a disparity in the operating privileges for the Technician and Technician Plus class licensees. Technician licensees without Element 1 credit (i.e., Tech Plus licensees) currently have operating privileges on all amateur frequencies above 30 MHz.

"With the elimination of the Morse code exam requirements, the FCC concluded that the disparity between the operating privileges of Technician Class licensees and Technician Plus Class licensees should not be retained," the FCC said in its public notice. "Therefore, the FCC's action, afforded Technician and Technician Plus licensees identical operating privileges."

The wholesale elimination of a Morse code requirement for all license classes ends a longstanding national and international regulatory tradition in the requirements to gain access to Amateur Radio frequencies below 30 MHz. The first no-code license in the US was the Technician ticket, instituted in 1991. The question of whether or not to drop the Morse requirement altogether has been the subject of often-heated debate over the past several years, but the handwriting has been on the wall. A number of countries, including Canada, no longer require applicants for an Amateur Radio license to pass a Morse code test to gain HF operating privileges. The list has been increasing regularly.

The FCC said the Dec. 16 R&O in WT Docket 05-235 comports with revisions to the international Radio Regulations resulting from the International Telecommunication Union (ITU) World Radiocommunication Conference 2003 (WRC-03). At that gathering, delegates agreed to authorize each country to determine whether or not to require that applicants demonstrate Morse code proficiency in order to qualify for an Amateur Radio license with privileges on frequencies below 30 MHz.

Typically, the effective date of an FCC Order is 30 days after it appears in the Federal Register. That would mean the Morse requirement and the revised 80-meter segment for automatically controlled digital

stations would likely not go into effect until late January 2007.

The ARRL will provide any additional information on these important Part 97 rule revisions as it becomes available.

-- *The above information was obtained from an ARRL Bulletin*

STRAYS

WANTED: ARCS Net Control Operators and Check-ins...The Amateur Radio Club of Savannah holds a weekly net on the 146.37/97 repeater every Thursday night at 9pm. The purpose of the net is to handle traffic, keep amateurs informed, and promote friendship among fellow Hams. This also provides a training experience to help amateur radio operators learn how to conduct nets. Please volunteer to do a net session every now and then. A net script can be found on the ARCS Web Site. http://www.qsl.net/arcs/net_script.txt

WANTED: Articles for *Key Klix*

BUY, SWAP, OR SELL

Wanted: Rohn 25, 50 or 60-foot tower.
Contact Doug Rowland
jdrowland@comcast.net

For Sale: Kenwood TS-520 HF Station with Desk Mic, Hand Mic, and operating/repair manuals. Asking \$200 Contact Pete Cooley Phone: 912-355-0049
cooley3892@bellsouth.net

For Sale: Alinco DM-1350 35A power supply \$75
Realistic HTX-100 10 meter transceiver \$55 w / mobile antenna add \$5
MFJ493 Memory Keyer w/manual \$75
MFJ-1702 A/B coax switch \$10
Contact Andy Blackburn, WD4AFY
(912) 238-4676 andy@g-net.net

HURRICANE MONITORING UPDATE –CHATHAM COUNTY RESPONSE EXERCISE

On December 13, 2006, Chatham County conducted a Hurricane Response Exercise. The exercise involved damage assessment, firefighting, and search and rescue elements, including air support for those elements. Unfortunately bad weather prevented most of the flight ops from happening. From a radio-monitoring standpoint, however, it did confirm some of the information presented last year in Key Klix.

Public safety agencies, the Coast Guard, and the military were heard active during the exercise. On the Public Safety side, the CEMA Emergency Operations Center (EOC), Pooler Fire, Port Wentworth Fire, Southside Fire, and Tybee Fire were heard. The US Coast Guard and one of their HH-65Cs from Air Station Savannah were apparently going to be used for air operations. Prior to air operations being cancelled, F-131 AVN of the Georgia Army National Guard at Hunter AAF was preparing to participate. References were made to Savannah Fire and to the Georgia Air National Guard, but they were not heard on any of the talkgroups or frequencies monitored (although this does not mean they weren't involved, they just weren't heard).

Chatham-Effingham TRS Activity

The CEMA 3 and CEMA 4 talkgroups were the most used during the exercise, with the CEMA 5 and the Fire Common talkgroups seeing use as well. Keep in mind that none of the following comes directly from CEMA documentation, but was inferred from reports from radio hobbyists. CEMA 3 seemed to be the exercise control and coordination channel, no exercise activity occurred on this talkgroup. CEMA 4 seemed to be the primary operating channel for the exercise, with various supervisors, entities, and the EOC coordinating damage assessment and air operations. Additionally, one of Chatham County's

helicopters, EAGLE 1 (MD 369E), managed to fly a damage assessment mission early and passed damage reports on area bridges and major highways over CEMA 4. The Fire Common talkgroup was used for communications between the EOC, firefighting, and search and rescue teams.

Talkgroup ID	Designator
6288	CEMA 3
6320	CEMA 4
6352	CEMA 5
37072	Fire Common

Conventional Activity

In addition to the Chatham-Effingham TRS, there were aviation, military, and marine band frequencies in use. Two VHF aviation frequencies (AM mode) were used, one designated for Air-to-Ground use and another designated for Air-to-Air use. Both the low band FM and the VHF AM operations frequencies for F-131 AVN were in use for communications between GUARD 262 (CH-47D) and HURRICANE OPS (F-131 AVN Operations). HURRICANE OPS, by the way, was not a name made up for the exercise. It is the regular static callsign for F-131 AVN. Marine VHF Ch. 21, the regular operating channel for the US Coast Guard in this area, was in use by Air Station Savannah and one of their helicopters that was apparently preparing to take part in the exercise.

123.025	Air to Ground (AM)
123.100	Air to Air (AM)
38.150	Hurricane Ops (FM)
139.400	Hurricane Ops (AM)
157.050	Marine VHF Ch 21 (FM)

From the amateur radio perspective, 123.250, 123.100, 139.400, and 157.050 can be programmed into most of the newer 2-meter and dual band transceivers. I would definitely add 123.025 and 123.100 to a list of "hurricane frequencies" for the area. All aircraft operating in the area after a Hurricane would have the capability to use these two frequencies, so they would certainly see heavy use. It is also possible

that 123.025 and 123.100 could be used during any event that uses aircraft from multiple agencies.

KF4LMT's Website

<http://mywebpages.comcast.net/kf4lmt/>

KF4LMT's Monitoring Post

<http://kf4lmt.blogspot.com/>

Mac McCormick III, KF4LMT, contributed the previous article
kf4lmt@comcast.net

MONITORING THE MILITARY PART 1

More new scanners, as well as some amateur radio gear, are being produced with the ability to monitor a subject that doesn't get much attention in the general scanning community. Most radio hobbyists are familiar with monitoring public safety type communications, but not with monitoring military communications. The Savannah area is rich with military communications to monitor. With this series of articles, I hope to open up the basics of the easiest part of military monitoring, military aviation, to you.

In order to monitor military communications, you have to get used to some different sets of frequencies than what public safety communications use. Additionally, some of these frequency ranges utilize AM rather than FM. For this reason, it is important to look for gear with selectable modes when looking for a radio to monitor the military with.

30.000-88.000 MHz

This frequency range uses 25 kHz steps in FM mode. The Amateur 6-meter band is in the middle of this frequency range, but look here for military activity, too. This range is used for ground communications and by aircraft such as Army and Marine helicopters and the USAF A-10.

118.000-136.000 MHz

Many of you are already familiar with the VHF airband. This range uses 25 kHz steps

and uses AM mode. Military aviation utilizes the airband along with civilian aviation. Many of the cargo and transportation type aircraft use this range almost exclusively for air traffic control.

138.000-144.00 MHz

This frequency range uses 12.5 kHz steps and both AM and FM modes. It is used for air and ground communications. Air communications utilize AM mode. USAF F-16s and A-10s frequently use this frequency range for air-to-air communications. Ground communications use FM mode. Many 2-meter and dual band radios have the ability to monitor this range although not necessarily in AM.

148.000-150.800 MHz

Although there are some non-government users in the top of this frequency range, this range is used by the military mostly for ground communications with 12.5 kHz steps in FM mode. There is some air communications utilizing AM, but it is not as frequently used for air communications as 138-144 MHz and 225-400 MHz is. Just as with the 138-144 MHz band, many 2-meter and dual band radios have the ability to receive this range.

162.000-174.000 MHz

Commonly known as the VHF federal band, the military also uses this frequency range for ground communications. 12.5 kHz steps and FM mode are used in this range, although more and more users are starting to use the P25 digital mode. It is not unusual to run into encryption in use by both federal and military users in this band.

225.000-400.000 MHz

This is the big one, the military airband. For the most part, this frequency range uses 25 kHz steps and AM mode. This band is currently undergoing changes, with the top 20 MHz being shifted to land mobile use in 12.5 kHz steps and FM mode. The rest of the band is primarily used for air-to-air and air-to-ground communications by aircraft of all the armed services. Satellite Communications are also found in this range

using FM mode. Some command and control type aircraft also use this range in WFM (wideband FM) and USB modes. Although this range has been left out of many scanners in the past, it is starting to be included in many newer ones. It can also be found in some dual band amateur gear.

406.000-420.000 MHz

Commonly known as the UHF federal band, the military also uses this frequency range for ground communications. 12.5 kHz steps and FM mode are used, although just like 162.000-174.000 MHz, P25 digital is coming into use. Frequencies in this range are also used for military base trunking systems.

With the frequency ranges explained, next month we'll begin to move into some specifics of how they are used in the Savannah area, beginning with air traffic control frequencies. Air Traffic Control is the best place to start finding military aviation communications. Of all the forms of military communications, military aviation is the easiest to hear because the altitude at which the aircraft are flying. You can hear quite a bit even with a handheld. Until then, try searching through these frequency ranges, you never know what you might find.

Mac McCormick III, KF4LMT, contributed the previous article
kf4lmt@comcast.net

AREA HAM FEATURED IN ARRL PUBLICATION

Recently, Bob Harman, W4WTO delivered a new ham radio flyer from the ARRL called the "New Ham Express" to Philip Neidlinger, KA4KOE.

Philip's XYL, Sheri Neidlinger, KG4KGW's, picture graced the first page of this publication. That same picture of Sheri was featured in Philip's "Green Radio Round-Up" article in the April 2006 QST.

HAM RADIO IS THE OLDEST RADIO SERVICE

Amateurs have been around since the beginning of radio itself. Many individuals built, communicated and experimented with radio. They communicated using Morse Code, that strange configuration of dits and dahs still holds the fascination of many operators today. Amateurs, or "hams" as we are known, have been at the forefront of radio technology. Many hams have pioneered the art of radio and provided experimentation, which has led to many of today's high tech. communication capabilities.

STRAYS



In 1992, David Rosenthal, WD4FIH, and Andy Blackburn, WD4AFY, visited the Voice of America (VOA) Bethany Relay Station in Ohio on the way to the Dayton Hamfest. This facility is now a museum.

ARCS DUES ARE DUE FOR 2007

It's a new year, which means it time to pay your annual ARCS membership dues. "Individual Membership" is \$30.00 and "Family Membership" is \$40.00. Please renew your membership before March 30th. Please help support the Amateur Radio Club of Savannah.



AMATEUR RADIO CLUB OF SAVANNAH



ARCS Elected Officers for 2007:

President: Doug Rowland, KF4EFP, jdrowland@comcast.net

Vice President: *TBA when election results are final*

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 2007:

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.