

GROUNDWAVES

September 2011

The Coastal Amateur Radio Society
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News and Notes

August CARS Meeting

Monday, September 12, 2011
7:00 PM at the Shell House Restaurant
8 Gateway Blvd West
Savannah, GA 31419

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CARS Officers

Guy McDonald, K4GTM
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Kevin Bell, KW4B
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Peter Levesque, KJ4FAW
2nd Vice President

Bill Elmore, KG4SZS
Treasurer
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Raymond Schrum, KJ4HAE
Secretary

Lowell Beckner, N4ZLJ
Trustee

Please E-Mail articles, items for swap or sale, announcements, or any other submissions for Groundwaves to:

Editor:
Mac McCormick III, KF4LMT
kf4lmt@gmail.com

August Meeting Minutes

Raymond Schrum, KJ4HAE

August 1, 2011

Called to order 7:05 pm

22 present, 3 guests

Invocation by Russ Pierce

Roundtable was used for introductions

Minutes from June

Corrections: None.

Motion to approve June Minutes Kevin Bell 2nd Russ Pierce

Approved by membership

Treasurers Report

Current Checking Balance : \$4535.78

Current CD Balance: \$5,331.48

Outstanding Checks:

none

Motion to approve Kevin Bell 2nd Paul Ecker

Approved by membership

Committee reports

Programs.

B-17 Update

Upcoming events

Aug 19-20	CART Bryan County Ft McAlister Fishing Event for Wounded Warrior Special event station W4W from parking lot
Sep 17	B-17 Event 64 th Anniversary of the Air Force
Sep 24	5k Race Heart of Savannah Road Race
Oct 1	SET – Simulated Emergency Test
Nov 5	Rock N Roll Marathon
Nov 11-12	B-17 Event 5k Race Veteran's Day Flying Fortress 5k

Emergency/ARES

ARES update of new positions

Georgia SET October 1

APRS Project

Kevin purchased equipment. Alinco and argent tnc. Plans to put it on the tower in Midway. Site already has antenna at 250' and rack for equipment. Backup plan is to place it on Candler Hospital.

Plan to set up an i-gate at Candler for internet access.

Education

General class for July was cancelled. VE sessions were held. 1 new technician. Education committee will be scheduling upcoming tech and general classes.

Technical Committee

On track to do something with 210 repeater

September Eating Meeting

September 12 – TBD via email

Nominating committee

Need 3 volunteers to select slate of ballot for club officers

Field day

Kevin presented wrap up of Field Day 2011.

Motion to adjourn Russ Pierce, 2nd Lester Lamhut.

Membership approved.

Meeting adjourned 8:43pm

The Coastal Amateur Radio Society Needs Your Help!!

Steve Jonas, K4SDJ and Guy McDonald, K4GTM

On September 24, 2011, CARS will provide communications support for the Heart of Savannah 5K Run. The race will start and finish at Forsythe Park. We will need 10 to 12 operators.

On November 5, 2011, the Rock and Roll Marathon and ½ Marathon will be held. We have been asked to provide between 25 and 30 radio operators for the event. We will be in charge of the 26 electronic time clocks located at each of the mile marks. When the race starts at 7:30 am, we will broadcast the start and all clocks will be started. We will then be responsible for keeping an eye on the clocks until after the runners are past and the clean-up crew comes by to pick up the mile marker and clock.

In order to accomplish this objective, we will be required to meet with race organizers 1 or 2 days prior to the run for an instructional meeting about the clocks, the run, and other information they deem necessary. The meeting should last no more than 2 hours. At that time, we will be given the clocks and stands for the clocks. The clocks are in cases about 1' X 4' in size and the stand is similar to a camera tripod in size.

On race day, we will have to arrive at our assigned locations by 7:00 am in order to be set up and ready by 7:30 am when the race starts. The time we will be there will be determined by the location on the course. The ½ / Full Marathon locations (mile 1 – mile 11) will be done before the full Marathon locations (mile 12 - mile 26). We will attempt to accommodate all operators to meet their time requirements. The operators requiring the most time will be those on the back side of the course. Some of them could be on the course until after 3:00 pm.

If you can assist, please contact Steve Jonas (K4SDJ) at 912-355-6522 or k4sdj@comcast.net. I will need your home phone, cell phone, call sign, and Tee-shirt size. If you need more information please give me a call.

If you know any operators who aren't members of the club, please feel free to give them the information as we need all the help we can get.

Work on the 147.210+ Repeater

Guy McDonald, K4GTM

After being plagued by problems with the 147.210 repeater over the last few years we were finally able to make some progress in determining its future viability. As you may know, this particular repeater is located inside one of the columns of the [Talmadge Memorial Bridge](#) which crosses over the Savannah River in downtown Savannah. The problem has been the fact that the repeater would key up on its own and just create a bunch of noise on the frequency. The thinking was that its location on the bridge over a major port authority corridor has become a very "noisy" RF environment with the addition of a variety of new radio sources since the post 9/11 increased security posture along the river. All of that is true but we thought that surely something must be wrong with our system to allow this increased RF to impact it so greatly. We have been able to turn the repeater off by accessing the controller via DTMF tones but the problem started getting so bad that this was becoming ineffective. An out of control repeater isn't very good operating practice.

Why haven't we been able to address this issue sooner and troubleshoot the problem? The increased security posture that I mentioned makes accessing a major bridge over a major river very difficult to coordinate. But after tasking the CARS club technical committee with coming up with a strategy to address the issue it was discovered that it may not be as difficult as we thought or at least as it once was. Paul, KJ4FAV led the effort to figure out who we needed to coordinate with to gain access. After a few phone calls, Paul had worked it out with Georgia DOT and we got a date on the calendar. Paul and Mark, KA4CID coordinated with the folks at Savannah Communications to do some testing and analysis on the system.

Paul and I met over at the Savannah Communications office this morning and we followed Mark and Ron downtown to the bridge. When we arrived, GA DOT was already there and had the right lane blocked off for us. The DOT guys opened the door to the southeast pillar for us to access the elevator which runs about a hundred feet up to the bridge cross section where the repeater is located. The antenna is located in the top of the pillar about another 100 feet up accessible by ladders running up through the column. The Savannah Communications guys loaded up their test equipment and headed up. Paul and I followed with our tools, laptop, cables, connectors, Gatorade, etc.



Left: DOT shuts down the right lane for access to the bridge pillar. Right: Ron, Mark, and Guy, K4GTM



Paul, KJ4FAV at the top with beautiful downtown Savannah below

Once we were all up to the area with the repeater we did a physical inspection to be sure everything was in place, connected, etc. All looked good except for some reason the squelch knob on the front panel of the repeater was all the way open! How the heck did that happen? Sure would explain why adjacent noise or stray RF might be getting into the receiver section of the repeater and being retransmitted. Mark adjusted the squelch and we power cycled the controller and the repeater came back up and started behaving like a normal repeater! Well, almost. There is still a tremendously high noise floor in the environment and there is a pulsing noise that can be heard when transmitting but nothing that causes the repeater to key up and belch all that noise like it had been doing. We did a few radio checks and called Kevin-KW4B to give the repeater a try. All seemed fine.

The Savannah Communications guys went ahead and did a complete test and analysis of the repeater, duplexer, feedline, and antenna. Everything checked out great. We also connected one of our hand held radios to the antenna to verify the pulsing noise and it was still there so we know it's coming from the environment and not a problem with the repeater. At least now we know that all of the equipment is in good shape except the controller which seems to have an intermittent power switch and configuration problems. It seems to be working well enough to keep it in place until we decide if we want to get a new one. We may also go back to install a filter between the duplexer and receiver to see if that help at all with the noise.

We made great headway and now we have a known baseline to work with as we monitor the repeater over the coming weeks. Kudos to Mark at Savannah Communications for already compiling the analysis report and emailing it to us and to Paul for leading the effort on this project!

Nets

Coastal Amateur Radio Society Net – Sundays at 9:00 PM, 147.330- (CTCSS 203.5)

Georgia State ARES Net – Sundays at 6:00 PM, 3.975 LSB

Statesboro Amateur Radio Society Net – Tuesdays at 8:00 PM, 147.105+

Chatham ARES Net - Thursdays at 8:00 PM, 146.970-

Simplex Net – Thursdays at 8:45 PM, 146.550

Amateur Radio Club of Savannah Net – Thursdays at 9:00 PM, 146.970-

Repeaters

146.700- (CTCSS 100)	Coastal Amateur Radio Society, Savannah
147.210+ (CTCSS 100)	Coastal Amateur Radio Society, Savannah
147.330+ (CTCSS 203.5)	Coastal Amateur Radio Society, Savannah
442.700+	Coastal Amateur Radio Society, Savannah

Important Repeater Announcement:

The 147.210 repeater is off the air until further notice due to interference issues. Please use the 146.700, 147.330 and 442.700 repeaters while it is off the air.

146.970- (CTCSS 123.0)	Amateur Radio Club of Savannah, Savannah
146.880 -	Amateur Radio Club of Savannah, Savannah
146.850-	American Red Cross, Savannah
146.745- (CTCSS 97.4)	Effingham County ARES, Springfield
147.105+	Statesboro Amateur Radio Society, Pembroke
145.300- DSTAR	Statesboro Amateur Radio Society, Pembroke – KJ4GGV C
440.700+ DSTAR	Statesboro Amateur Radio Society, Pembroke – KJ4GGV B
147.015+	Hinesville Amateur Radio Emergency Society

New Amateur Radio Club in Bryan County – the Coastal Amateur Radio Team

There is a new radio club in Coastal Georgia. Based out of Richmond Hill in south Bryan County, the Coastal Amateur Radio Team (CART) was formed this year and has the club callsign KK4BTD. From their website: CART was founded in 2011 as a non-profit association. CART was formed for educational, charitable, and scientific purposes which shall include, but not be limited to the following:

1. The promotion of individual operating practices, particularly those that relate to all authorized Amateur Radio Frequency operations and experimentation among radio amateurs.
2. To facilitate the exchange of information and general knowledge among members.
3. Relaying of messages by radio.
4. The furtherance of public safety and welfare and establishing international good will.
5. The advancement of the radio art.
6. The fostering and promotion of the education in the field of electronic means for the benefit of the member and general public.

In the short time they've been in existence, they have been very active in recruiting and VE testing new hams. One of their first events was communications support and a special event station for the 1st Annual Ft. McAllister Wounded Warrior Fishing Rodeo.

Helping the Coastal Amateur Radio Team with the 1st Annual Richmond Hill Wounded Warrior Fishing Rodeo

Mac McCormick III, KF4LMT

On Saturday, August 20, I participated in the 1st Annual Ft. McAllister Wounded Warrior Fishing Rodeo assisting the Coastal Amateur Radio Team with communications support. It was an honor to help with an event giving back to those that have been wounded in service to our country. There were 76 soldiers that went out with event on 31 inshore boats and 45 offshore boats – what a great turnout! I haven't been on a boat and out on the water in years so yesterday was great fun. I'm so happy that Larry Lowe, AF4MI came to me a few months back and asked me to be a part of this inaugural event; I'm ready to sign up for next year's event!

I was placed on a communications support boat, eight of which were strategically placed throughout the coastal area to relay communications from the fishing boats on Marine VHF Ch. 68 and coordinate response to any emergencies via the 145.470 Riceboro repeater. Amateur Radio Operators also helped keep track of which boats had checked back in at the Ft. McAllister Marina for weigh-in and which boats were still out at the end of the event. David Little, KD4NUE did a great job operating KK4BTD, the net control station, throughout the day. A special event station using the callsign W4W was being operated in conjunction with the fishing rodeo as well. Amateur Radio Operators that participated (and I apologize if I'm leaving anyone out) were:

- Larry Lowe, AF4MI
- Laura Lowe, KJ4RRQ
- Erika Huckaby, KJ4VMK
- David Lowe, KF4JCC
- Sam Davis, KJ4UKZ
- Ken Reynolds, KJ4ULA
- Damon Webb, KJ4VML
- Steve Miskelley, KK4DJR
- Glynda Little, KD4NUF
- David Little, KD4NUE
- Terri Tillman, K4TMT
- Greg Tillman, N4VAD
- John Gough, KJ4VMM
- Kevin Bell, KW4B
- Bill Gary, KT4KH
- Gene Martinez, KK4DJS
- Scott Spurlock, N4SES
- Philip Neidlinger, KA4KOE
- Lyndy Brannen, ND4XE
- Mark Aulick, KF4MLT

I met Bernie Johnson at his house in Richmond Hill just after 0600 and we were on the water by 0630 in his 20ft Grady White "We Two II" for the next 10 hours. We first went out to the south end of Ossabaw Island where Larry, AF4MI and Sam, KJ4UKZ were setting up a station on the southern tip of the island. While off of Ossabaw Island, we were in the middle of a massive school (the correct terminology?) of sort of translucent white and purple almost globe shaped jelly fish most of which were the size of a ping pong ball or a golf ball. I have no idea what kind they were but there were so many of them you could never have hoped to have counted them all!



Early morning sunrise

My selection of gear for the day was the Yaesu VX-7R with a Diamond SRH-77CA antenna as my primary radio with the Icom IC-91AD for backup. The backup radio was never needed nor was the second battery I brought for the VX-7R. Bernie's boat had a 12v power port so I also brought an inverter in my backpack in case we needed to charge anything off of wall warts (the need never arrived). The inverter may have been overkill, but I'd rather have had it and not needed it than to have run out of battery and been out of communication. I also brought along the Uniden BCD396XT and had it on in the background mostly listening to some milair activity (the 125th FW out of Jacksonville was active offshore several time in the late morning and afternoon).



The BCD396XT and the Yaesu VX-7R with Bernie's GPS and Depthfinder

Shortly thereafter we were sent to the Intracoastal Waterway marker near day beacon 124 and Walburg Creek. We remained in that area for the rest of the day except when we went back over to Ossabaw Island to pick up lunch from Larry and Sam in the early afternoon. The day started off hot; early on there was no breeze so it the temperatures really got up (and the boat's instrumentation showed the water temperature at 86-87 degrees). Later in the afternoon, the breeze picked up and conditions became more tolerable. In between the hourly roll calls by David at KK4BTD and monitoring Marine VHF Ch. 68 for any calls or emergency traffic we watched boat traffic go by, swapped stories, and basically enjoyed a good day out on the water. We saw one USN or USMC CH-53 fly overhead and one UH-60 (probably one from the OLR at Hunter on a test flight) flying around the area but we never heard them on the BCD396XT; Bernie is a retired pilot, so that led to some good flying stories.



Views from our post near day beacon 124

From my perspective in one of the communications support boats, the event seemed to run smoothly (mind you, my perspective was not the best to judge that from). There was only one medical emergency; someone on one of the fishing boats became dehydrated and the boat brought them back to the marina. David Lowe, KF4JCC did a great job relaying traffic between the fishing boat and the marina where amateur radio operators at KK4BTD made arrangements to have Bryan County EMS meet the boat when it arrived. Another fishing boat experienced mechanical problems and had to call Sea Tow to come pull them in; this was also in David, KF4JCC's area and he was able to relay in to KK4BTD that the vessel would be late getting back in.



The BCD396XT and the Yaesu VX-7R with Bernie's GPS and Depthfinder

In any inaugural event such as this, there are lessons to be learned and next year's event should run even smoother on the communications side. The 145.470 repeater worked excellent, providing handheld coverage for the area fishing rodeo used. The only surprise (to me at least) was that it seemed to provide weak handheld (but easy base or mobile) coverage at the Richmond Hill Marina; I surely thought that HTs there wouldn't have been a problem. That, however, is an easy problem to solve in the future. A dual band mobile set up to crossband repeat at the marina would allow the operators there to run low power UHF and get into the 145.470 via the crossband repeater. The crossband repeat radio could run off of a deep cycle marine battery pretty much unattended for the whole day.

Around 1630, Larry secured Bernie and I from our post and we headed back in. Conditions were a bit rougher than in the morning, so it took us a little bit longer to get back in that it did for us head out in the morning. Listening to the Marine VHF radio and to reports from the amateur radio operators at the marina, the fishing boats seemed to meet with varied levels of success; some reported good catches, others didn't. We did catch one report of a 24lb barracuda being weighed in at the Marina! Weather was becoming a concern at the time and we could see some lightning off to the west. Some of the other boats reported some light rain, but as of the time we moored up thunderstorms hadn't become a problem. All I can say is that I had a great time and I'm so thankful that Larry asked me to help with it. I believe that CART did an excellent job on their first major event, they should be proud of what they did yesterday! Next year, I'll be glad to help out again!

Mighty 8th Air Force Museum B-17 Updates

Guy McDonald, K4GTM

July 14, 2011 - The first official transmission from the B-17 "City of Savannah" station WW2COS was a great success! All of the radio gear performed well. We made brief contact early on with the Shreveport Amateur Radio Association team who were setup in front of their B-17 "Miss Liberty" at the Eighth Air Force Museum at Barksdale AFB, LA. Band conditions on 40 and 20 fell off in that direction through the afternoon but we were able to go on and made another 25 or so contacts across the country as well as our first DX contact to Dieter, DK4XW in Germany. There was media coverage from three local television stations and one of the local radio stations! The museum did a great job coordinating the event.



Left: Guy, K4GTM tuning in a station on the BC-348 Receiver. Right: The Shreveport Amateur Radio Association in front of "Miss Liberty" at Barksdale AFB

What a team effort it has been to bring the project to this point. I really love the "City of Savannah" Restoration Team and the staff at the Mighty Eighth Air Force Museum! I know I speak on behalf of all of the hams in the Coastal Amateur Radio Society when I say that we consider it a great privilege and honor to be a part of this project!

July 30, 2011 - Time was spent at the Mighty Eighth Air Force Museum today to begin documenting some of the power distribution wiring on the B-17. We plan to have a manual that shows the installation of all of our equipment and the power up and operating procedures of the compartment. I'll be writing a "preflight checklist" as well. Folks will need to be checked out on how to bring everything up and how to operate the radios. This is going to be fun.

We also have received and installed an original FT-154 shock mount for the BC-348 receiver that is on the radio operators table. They are rarer than the actual radios themselves. Thanks to Tommy Garcia who found, purchased, and donated it to the project.

August 24, 2011 – I got to spend a couple of hours at the museum today with Mac, KF4LMT doing some work in preparation for our next communications event on Sept 17th. Since the last work day we have ordered and received a new tuner for the Kenwood HF radio so that we can better transmit on the 80 meter band. The Kenwood TS-480 internal tuner wasn't quite cutting it on 80 meters so we had Dave, one of the project managers order a new LDG KT-100 auto tuner which has a control cable connection to the TS-480. Perfect. We spent some time determining exactly where to mount the unit and decided to attach it directly to the HF rig which is under the radio table. Mac suggested we use some "Superlock" tape (a heavy duty "velcro" type tape) which I think will work just fine. We went ahead and installed the coax jumper and control cable to the Kenwood and will mount the tuner on the next visit.

We also had Dave order us a small, low power FM Transmitter to interface with the BC-348 Receiver so we can send the audio output over the air so that it can be heard on regular FM radios outside the aircraft (or anywhere in the museum really). This keeps us from having to run external speakers to the outside of the aircraft and gives us great flexibility in allowing visitors to the museum to hear what's going on inside the radio compartment. Thanks to Carroll Baker-WX4Y for this great idea. Mac and I tossed around some ideas on where to mount this unit and will install and test it on the next visit.

While at the museum we discovered that the HF dipole antenna had been the victim of a very strong wind gust during a recent afternoon storm. One leg of the dipole pulled away from the center feed point so we repaired that and hoisted the antenna back up into it's normal position. We'll put the analyzer on it and test everything on the next visit.



Newly installed BC-375 Liaison Transmitter

A couple of new items have been added to the radio compartment since the last visit. Bob McDonald and John Finch have completed the fabrication of the Liaison Transmitter mount and have installed the transmitter on the bulkhead. It looks great! The team has also added fire extinguishers in the cockpit and the radio compartment. A must addition now that we have electricity running thru the aircraft!

Upcoming 8th Air Force Museum/B-17 "City of Savannah" Events:

- Special Event Station to celebrate 64th birthday of the USAF on Sept 17. We will operate WW2COS from the radio compartment of the B-17 "City of Savannah" from about 0800 till 1700. Any operators are welcome to attend.
- Special event station to celebrate Veterans Day on Nov 11th and 12th. We will operate WW2COS from the radio compartment of the B-17 "City of Savannah" from about 0800 till 1700 on Friday the 11th and Saturday the 12th. Any operators are welcome to attend.

- CARS will provide communications support for the 2nd Annual "Flying Fortress 5K" on Nov 12th at the Mighty Eighth Air Force Museum. Sign up to volunteer with Steve or Guy.

ARES Notes

1. Gene Clark, W4AYK was re-elected as the ARRL Georgia Section Manager
2. This year's ARES Simulated Emergency Test (SET) will be held on October 1. See the statewide scenario at the Georgia ARES website and stay tuned for more local details: <http://gaares.org/ga-ares-news/?p=325>
3. There will be a Basic Skywarn class on September 19 in Hampton Co. S.C. at the emergency services building at 702 2nd Street West in Hampton S.C. at 5:30 pm. Contact Susan Peebles at 803-914-2150 to register. The class is free and is very informative, especially for new hams.
4. New ARES Officer Appointments :
 - AEC Chatham County, Kevin Bell, KW4B
 - EC Bulloch County, Casey Brown, KF4BSC
 - AEC Bulloch County, Doug Hess, KF4FBP
 - AEC Liberty County, Dwight Biechler, K4YPM

For Sale

Yaesu VX-6R HT with Diamond SRH77CA antenna, in near perfect condition with wall charger, pre-programmed with satellite frequencies. Looking to get \$175

Arrow II dualband handheld Yagi antenna with 10 watt duplexer – \$100

Contact Will Griffin, KJ4PSU at 478-494-7575