

# Zero Beat



Montgomery Amateur Radio Club Newsletter

Established 1938

January 2012

## CALENDER OF EVENTS

### CLUB MEETING

Every month - 3<sup>rd</sup> Monday at 7 PM  
American Red Cross Building  
5015 Woods Crossing Dr. Montgomery

### FELLOWSHIP BREAKFAST

Saturday morning before the club meeting at 8:30AM  
Shoney's - Eastern Blvd just North of I85.

## FCC EXAMS

Montgomery ARRL VE Team: Last Saturday every month at  
1:00 PM at American Red Cross, 5015 Woods Crossing Dr.  
For information, Howard Marshall, W2SKP, by e-mail,  
[hmarshal@w2skp.com](mailto:hmarshal@w2skp.com)

CAVEC every 2<sup>nd</sup> Monday at 6:30 PM at  
American Red Cross, 5015 Woods Crossing Dr.  
For Info contact Jim Eiland, KR4JY ([jeiland@knology.net](mailto:jeiland@knology.net))

Additional Exam Info:

<http://www.arrl.org/arrlvec/examsearch.phtml?State=AL>

## Club Nets

Central Ala 2 meter Net  
Sunday at 8:00PM on 146.84 MHz Net manager: Chris, K4LIA

2M SSB Net,  
Sunday, immediately following the Central Ala 2 meter Net  
on 144.210MHz USB Net Managers: EI K4DJL & Jim N4CIO

SkyWarn/Alabama Emergency Net Golf  
Thursday at 8:00PM on 146.84. Net manager: Otto, N4UZZ

## 2011 Officers

President: Ken Kohnke, KJ4CJP  
Past President: Scott Poole, W4SPA  
Vice-President: Daniel McCaffery, KE5GDK  
Secretary: Chris Hall, K4LIA ex KD6BOD  
Treasurer: Dana Persells, WJ4Z ex KJ4IBB  
Publicity: Trey Brooks, N4BTB  
Trustee: Jim Eiland, KR4JY  
Trustee: Rik Doll, KU4PY  
Trustee: Phil Salley, K4PO  
Trustee: Scott Poole, W4SPA  
W4AP Trustee: Tim Moore, K4TK

## Local Repeaters

146.840(-) W4AP Wetumpka  
146.920(-) W4AP Eastdale (DSTAR)  
147.180(+) W4AP Tall tower - Grady, AL 123 Hz  
444.5(+) W4AP Wetumpka 100 Hz  
53.350(-) W4AP Titus, AL 100 Hz  
444.450(+) WD4JRB Baptist Tower 100 Hz  
(Echolink Node 212144)  
446.450 (Splx) IRLP (4845) Baptist Tower 110.9 Hz  
147.200(+) KE4LTT Friendship 107.2 Hz  
444.575(+) KE4LTT Friendship 100 Hz  
147.380(+) W4KEN Santuck  
145.690 W4AP BBS  
144.390 W4AP-1/3 APRS Digipeaters



## From the President's Shack

*By Ken Kohnke, KJ4CJP*

Well summer is over and fall has arrived but, we leave behind some good memories such as Field Day!

What a great time we had at Ft. Toulouse! We couldn't have asked for better weather for that weekend! It was actually the first Field Day that I've experienced where we had no rain. Several of us rented camp grounds (including yours truly) and spent the weekend in campers and tents. Station captains utilized whatever resources they could find to put their antennas up. Ft. Toulouse accommodated our needs well and I have already made reservations for us to return next year if we so decide. I talked with Mr. Jim Parker in July and he had no complaints about us and welcomes us to return next year! He even told me that he would make accommodations for us if someone had to leave after hours. He said they were going to be making some changes and to make sure we make whatever arrangements we need ahead of time. We were visited by Wetumpka's mayor Mr. Jerry Willis and he was fascinated on how we made use of the park. Our claimed score this year is 3,914 points most of which were scored by the CW station. I also claimed 950 bonus points.

I hope we decide to go back to Ft. Toulouse next year. The pavilion served us well and of and thanks to Lew and Karen Nyman we still got to enjoy Lew's chili!

Coming up on October 29<sup>th</sup> which is a Saturday is the American Cancer Society's "Making Strides for Breast Cancer". Last year (which was their first year of the walk) we were asked to give communications support. Several of us volunteered and it went off without a hitch! The weather that day was a beautiful sunny morning with nice cool temperatures. It was perfect. This year we have been asked once again to provide communications support. The walk starts at 8:00 a.m. at Huntindon College. If you wish to volunteer for com. duty please contact Scott Poole (W4SPA) or I. As some of you know a few weeks after last year's event, Scott's wife was diagnosed with breast cancer. This year she will be walking as a breast cancer survivor! So please contact Anita Poole

for donations towards her goal! If you wish to make a donation on her behalf just click on the link below.

[http://main.acsevents.org/site/TR/MakingStridesAgainstBreastCancer/MSABCFY12National?px=17816964&pg=personal&fr\\_id=36110](http://main.acsevents.org/site/TR/MakingStridesAgainstBreastCancer/MSABCFY12National?px=17816964&pg=personal&fr_id=36110)

Don't forget about Hamfest! How can you possibly forget about Hamfest? For those of you that haven't heard, we got the ok from the Alabama State Fair Commission to use the Garret Coliseum for Hamfest. Jason Smith (W4EGR) made the official announcement at the September club meeting so we are a go! But we still need to consider looking for another venue as next year is very uncertain. Jason passed around a sign-up sheet for volunteers. We are in need of people to help set up tables. This year we do not have the luxury of having the tables set up for us so you young bucks out there, please contact Jason Smith or I to volunteer to help out! You can email Jason at [w4egr@att.net](mailto:w4egr@att.net).

**Hamfest is on November 20<sup>th</sup> so we will need tables set up on Friday starting around noon. Yours truly will be helping out so I hope to see you there!**

One final word:

At the October club meeting we will be holding nominations for club officers for the year 2012! Nominations will remain open until the November meeting when elections take place.

### Need a ride to MARC Meetings?

If you or someone you know of would like to attend the monthly MARC meetings but cannot get there, we can help.

Please contact me at 334.309.4703 or by email at [secretary@w4ap.org](mailto:secretary@w4ap.org)

If you get my voice mail, please leave your name and phone number and we will make arrangements to get you to the meetings.

# 2011 MARC Hamfest

## The Show Must Go On!

Jason Smith, W4EGR  
MARC Hamfest Chairman

This year's hamfest will have special meaning to those of us who worked on the committee to get this thing running for 2011. After a long period of confusion, excitement, and sheer terror that started with the convening of the Alabama State Legislature, the 2011 MARC Hamfest has returned to Garrett Coliseum for possibly the last time. While everything seemed to fall into place at the precise moment, there were times when everyone felt this it would not go on this year.

During our first committee meeting in January, everything seemed as though that we would continue on as we have in year's past. However, there was a looming threat that the new state General Fund Budget would cut out Garrett Coliseum completely. When the budget was released in February, our worst nightmares were realized. Garrett Coliseum was to be shut down in September, just before the Alabama National Fair and the hamfest. By the time our second meeting rolled around the first part of August, a flurry of emails, phone calls, and face-to-face conversations had occurred and concerns that the hamfest would need to be moved or shut down were starting to aggregate. A drop-dead date of October 3<sup>rd</sup> was established by the Executive Board for us shutting down the hamfest if it came to that. In the meantime, we all were scrambling to find a new home and quickly. By the middle of the month, we had officially hit panic mode. That's when I received a phone call from Bill Johnson, the Executive Director of Garrett Coliseum. The conversations that him and I had had up until that point were rather disheartening. We had been officially notified previously that we needed to find a new home since no deal would be in place to run the Coliseum for quite some time and that even the Alabama National Fair was in jeopardy. All of that changed with this phone call. We were being notified that we were still on for the hamfest and for us to continue as we have in the past. Garrett Coliseum would be ran by the Alabama National Fair Board and no changes were going to be made. I contacted our new point of contact with ANFB and was quickly assured that nothing was to be modified or changed. I finally breathed a sigh of relief after months of worrying that my first hamfest would become a nightmare and not even happen to begin with.

With the worrying out of the way, we all have turned our attention to making this hamfest one of the best we've had in recent years. My goal when I took over the chairmanship was to make the hamfest grow, instead of decline as we have seen over the last few years across the country. I am now asking you, as amateur radio operators and enthusiasts alike, to come out and help support the 2011 MARC Hamfest. If this is our last year at Garrett Coliseum, I think everyone will agree that we'd like to have one more big blowout of a hamfest inside before we move on to a new home. Come out and join us and let's show what the largest hamfest in Central Alabama means to everyone!

## My First HF Experiences

Randy Crowder AJ4HX

OK, so what if I told you I used HF radios, with minimal training, with no license, for more than 10 years? Legally! Still shaking your head? Still wondering? Well, I was a transport pilot for the US Air Force.

Between 1984 and 1994, I accumulated over 3000 hours in both the C-21A Learjet and the long-haul, high capacity C-141B Starlifter. I thought I'd share some of what's involved in HF operations within that environment by looking at usage, equipment and training.

### Usage

As a rule, there were two uses for our HF radios: air traffic control (ATC) and military Command & Control (C2).

ATC: ATC HF was primarily used during the trans-oceanic portion of flight due to the VHF/UHF line-of-sight limitations. Frequencies were assigned by ATC and were generally dependent upon atmospheric conditions and time of day.

C2: To maintain contact with "home" whilst traipsing the globe, we used a series of about a dozen C2 stations located around the globe to relay message traffic as well as communicate any mission issues. Each station generally had three specific frequencies; if one didn't work, we used another. Initial calls were generally in the blind; we'd then work with whatever station responded to our call.

### Equipment

C-21: The Lear had a commercial aircraft HF installation, manufactured by King. The control head was mounted in the center pedestal between the pilots; I don't recall where the receiver/transmitter was located. The tunable antenna was a wire suspended between the top of the tail and the top center of the fuselage, about 15 feet in length.

C-141B: The Starlifter had two separate but identical HF radios, sharing one antenna through a coupling system; the entire system was designed for the military environment. The two control heads were, again, on the center pedestal between the pilots. The receiver/transmitters were located in the avionics rack below the cockpit. The single antenna (tunable) was in the forward-facing spike at the top of the tail. While transmitting/receiving on one radio, we could still monitor the other.

### Notes:

- The control heads, approximately 2 x 5 inches for both aircraft, both had the following controls: power/volume, frequency select/display, variable squelch, mode select, as well as the ability to program/select/use preset frequencies (99 on the Lear, 30 on the Starlifter). The C-141 had several additional features that dealt with coupling the two individual control heads to the antenna. The radios in both aircraft operated in the 2 to 30MHz frequency range.
- Both aircraft were also equipped with VHF and UHF radios. VHF was primarily for over-land air traffic control. UHF could be used for ATC, but was also for military-only communications.

### Training

I never received any formal training to operate these HF radios. The flight manual provided general operational information; everything else I learned via OJT and word-of-mouth. Generally, I was taught to select the frequency, briefly key the mike to tune the antenna, then transmit. One other tip, even handy today, was “the higher the sun, the higher the frequency;” quite useful if a selection of frequencies is available for any given task.

## Summary

Hopefully, I’ve given you some insight into a rather specific HF niche. All-in-all, it’s not as wild and scary as I led you to believe back at the beginning; our usage was quite specific. For us, HF was just another means of communication. And as a final note, I trained, tested & earned my amateur license in the spring of 2008.

73

Randy Crowder  
AJ4HX

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## How Do I DX?

By Jim Eiland – KR4JY

Many an Amateur Radio Operator has been asked this age old question: How Do I DX? There is not really a clear answer to this question, but I will try to give everyone some of the pointers that I have gained over the past 19 years that I have been a Ham.

First and foremost is to listen. What I mean by that, is not just listen to see what is going on, but listen to see what the DX is and where he is. It is real easy to just jump in and start calling without knowing what you are doing. You have to establish where the DX is. Is the DX on simplex or is he running a split frequency. If you listen you will quickly find this out. If he is simplex, you will probably hear quite a pile up going on. By the way, a pile up, for you new hams that don’t know, is when you have about 50 to 100 or more other hams yelling there call signs at the same time. If you don’t hear all this commotion and all you hear is the DX station signing his call, he is probably on a split frequency. A split frequency is when the DXer is listening on one frequency and transmitting on another frequency. You may ask; why would he do that? The reason for this is, he can spread out the DXers calling him so that he can pick them out better. For instance, he may be transmitting on 14.195 and listening between 14.200 and 14.205. You will probably hear him say: This is P5JXK listening 200 to 205. If you pick out a frequency somewhere between 14.200 and 14.205 and put your transceiver to listen on 14.195 and transmit on 14.203; when he says this is P5JXK listening 200 to 205 QRZ, then you can sign your call and hope that he is listening on your frequency. It may take several tries but if you are persistent enough you will probably make contact with him.

Second, you should always be as persistent as possible. Sometimes there are so many stations calling the DX, that it takes a while for him to get around to all whom are calling. I have personally signed my call for more than an hour on end until I finally got the DX

station that I wanted. It is not for the faint of heart and also not for someone with very little patience. You really have to be very aggressive at it, but yet not obnoxious. There will be times when other hams may get mad at you, but as long as you are using good amateur radio practice, you know that you are playing the game fairly and they will eventually get over it.

Third, if you have access to a DX cluster program it will help. What is a DX cluster you might ask? This is a spotting program on the internet or on a packet cluster that will let you know who is on the air at a given time, frequency and what country they are in. Depending on the program that you use, it may give you the time in UTC, frequency, direction that they are in if you are using a beam antenna and other comments such as whether they are on simplex or on a split frequency. I personally use one call DX Monitor. It is really a great tool to amateur radio DXing if you are a serious DXer.

Fourth and final for this class on DXing; Don’t try to make DXing a ragchew. If you want to ragchew, this is not the venue for that. This is strictly making a contact and giving a signal report. You will definitely make many enemies if you try to ragchew when there are hundreds of hams out there looking for a rare DX country and you want to have a 10 minute QSO with him. He is probably going to be kind and shrug you off anyway. A common DX call would be something like this: CQ, CQ, CQ, this is P5JXK calling CQ, QRZ. You will call: KR4JY or what ever your call is. He will respond: KR4JY, go ahead or maybe just KR4JY. You will respond: This is KR4JY, you are 59 in Montgomery, AL., name is Jim, QSL. He will then respond with your signal report and possibly his name. He may just say KR4JY 59. You really don’t have to give your name. That is optional. There are many hams on the frequency trying to get the same DX, so you really do have to be as brief as possible with your transmission. Hopefully you can see why I say that this is not a ragchew contact.

One of the best ways to get practice DXing is Amateur Radio Field Day every year. It helps you listen for call signs and helps you to learn to pick out call signs under adverse conditions. It does take some practice though; the same as anything that is worth your while. Field Day is almost always done on simplex, so you will not get much practice in this venue with split frequencies, but you can practice that when you are faced with that situation.

Hope this article helps out those who are interested in DXing and making contact in foreign countries. If you have any other questions that I can help you with, I will be glad to help you out. I have made over 12,000 contacts in my ham career and have worked 322 countries and confirmed 319 in my 19 years on the air. These pointers I have given to you have helped me and I hope they will also help you in your quest for DX. Good Luck and Good DXing.

This is KR4JY signing off.

73

# September 2011 Column

By Dan KB6NU

Hi, folks--

This month's column was written by Craig Miller, W8CR. I worked Craig about a month ago, and when he mentioned that he'd written articles for his club's newsletter, I asked if he'd like to provide a column occasionally. I hope you enjoy this column as much as I did.

73!

Dan KB6NU

## Bitten by the Bug

By Craig Miller, W8CR

Ahhhhh, just put the kid on the bus, and the wife is on her way to the salt mine. Now, I have 45 minutes to see if I can scare up a quick QSO.

40 meters sounds pretty quiet this morning--no ear splitting static crashes. The usual morning CW junkies must have already headed off to work or out mowing the grass. I spin the dial down to 7.023 to see if any speedsters are still on. Some days, I can even keep up with them at 30-35 wpm. It must be later than I thought, though. Those guys are gone too.

Tuning back up to 7.030, I hear a couple of guys wrapping up a chat at about 20 wpm: "FB FRED MUST QRT TO WALK THE DOG 73 ES CUL..." (translation: "Good copy, Fred, but I really gotta go to the bathroom! Best regards and see you later.").

I spin the dial up to 7.032, and don't hear any beeps or boops. I guess here is where I'll cast my line. "QRL?" (translation: "Anybody out there working that last rare DX station for your DXCC that I can't hear?"). Nuttin' heard. I'll QRL one more time before "CQ CQ CQ DE W8CR W8CR K". Silence. Again "CQ CQ...". Just the hiss out of the speaker. Well maybe this ain't gonna happen today. One more time...

Bam -- I got one! He's got a nice strong signal too. But, wait. What the ...? What is he sending me? "DAAAAHHHHHH DIT DIT DIT DIT DAAAAAAHHHHHHH DAAAAAAHHHHHHH DAAAAAAHHHHH DIT DITDITDIT DIT DIT DITDITDITDAAAAAAHHHHHH." NUTS! He's using a bug, a mechanical key dating back to the old railroad days. It's an ingenious mechanism for sending high speed code, but it takes a lot of practice to send clear, copyable code. I can barely make out my callsign let alone his -- this isn't gonna be fun.

I have two options:

1. Don't reply and pretend I didn't hear him. He's really strong, though, and most likely I am, too. He knows I can hear him. Plus, that's the coward's way out.

2. Answer him and tough it out.

I answer him. We exchange the usual stuff. My RST is 579, his name is Bill, and he lives in Niassa Fihls, errrrr, Niagara Falls, NY. "Niagara Falls, eh?" We've been wanting to visit there before our kid gets too old to even want to be seen with his parents, let alone ride in a car for 6 hours to look at water flowing over rocks. Plus, that's where Nikola Tesla built his hydro power station that illuminated Buffalo over a hundred years ago. I'm hooked now -- lotsa questions for him.

As our conversation progresses, his dot-to-dash ratio varies all over the map, but I slowly get used his style of CW. It's like listening to British shows on PBS. At first, they're totally unintelligible, but over time, your brain figures it out.

I have to give him credit, he's using something that is a passing skill. I have a bug I bought years ago, but could never master it well enough for me to feel comfortable subjecting others to the noise.

Well, that 45 minutes passed fast. Time to get to work. I promised I would look him up whenever we get to Niagara. I guess it wasn't a total nightmare working him and his bug, after all. Kinda like talking to somebody with a thick accent.

After all, he is a New Yorker.

Craig Miller, W8CR, began his ham career in 1974 as WN8TLC. He lives in Ostrander, Ohio. He enjoys HF CW ragchewing with a little bit of DXing and contesting tossed in. He is an active officer in the Delaware County (Ohio) ARES and a member of the DELARA ([www.k8es.org](http://www.k8es.org)) radio club.

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## BASIC STORM SPOTTER CLASS

Montgomery City/County EMA is hosting a 2 hour **Basic Storm Spotter Class** conducted by the National Weather Service on Thursday, October 6th from 6:00 p.m. until 8:00 p.m. The training is free and will be conducted on the 1st floor of the 1 Dexter Plaza Building at the foot of Dexter Avenue overlooking the Court Square Water Fountain. **Entrance to the building is on the Montgomery Street side.**

Storm Spotter Training is useful for all emergency responders as well as the general public. The NWS presents the training in an easy to understand format. For more information about the class you can visit the website at <http://www.srh.noaa.gov/bmx/?n=skywarnschedule> and scroll down the page.

Attending the training does not obligate you to report storm damage to the National Weather Service although you may voluntarily do so. **To register for attendance, please call Montgomery City/County EMA at 334-241-2339.**

# MARC Gets a New Communications Trailer

By Scott Poole, W4SPA

MARC Trailer Committee Chairman

In the spring of this year, the subject of our aging communications trailer came up again at a club meeting. After a brief discussion, nearly everyone in attendance agreed that the old trailer was in need of replacement and that we should consider purchasing a new trailer. Treasurer Dana Persells, WJ4Z, explained that the MARC treasury had plenty of money to purchase a trailer, I volunteered to chair the project and the rest, as they say, is history.

MARC President, Ken Kohnke, KJ4CJP, discovered that his former neighbor and long-time friend Scooter Dickey was a sales representative for a company called Truck and Trailer Outfitters in Wetumpka, so Ken and I wrote up our wish list for the new trailer and we met Scooter for dinner to discuss the details. A few days later Scooter presented us with his cost estimate and it was well within our budget. Ken gave Scooter the okay and about 4 weeks later on April 5<sup>th</sup>, we took delivery of the new MARC trailer. My first experience towing the trailer that evening was quite pleasant even though my truck was not equipped with the necessary controller to make the trailer brakes operate. It was very well behaved and since it was empty and not very heavy, it towed almost effortlessly. Since then I have added a brake controller to my truck and even as the trailer has gotten heavier, it's still no trouble to tow. Any standard-duty ½ ton pickup truck with a towing package can tow it easily. The trailer purchased by MARC is a 16 ft long by 7 ft wide enclosed cargo trailer. It has tandem axles with electric brakes on both axles. It's rated to carry up to 7,000 lbs. In order to tow the trailer, the towing vehicle needs a class III rated hitch with a 2 5/16 inch ball, a 7-pin round electrical connector and an electric trailer brake controller. The trailer was custom built to our specifications and we ordered it with the following features:

- 1 ft of additional height – bringing it up to 7 ft inside height
- 3 year manufacturer's warranty
- 1 curb-side door with paddle latch and security bar locks
- double doors on the back
- spare tire w/ mounting bracket
- upgrade to radial tires
- extra bracing in roof for A/C
- wired for an A/C unit
- insulation in ceiling and walls
- 1 vent in ceiling – creates a hole for the A/C unit
- 16" OC bracing on floors and walls
- 3/4" treated plywood floor
- 3/8" plywood walls
- EZ lube hubs on both axles
- Tinted windows 15" X 30" - 1 on each side
- LED exterior light upgrade
- Exterior color – white
- Galvalum seamless roof

Next, we turned our attention to the work (and money) needed to complete the customization of the interior of the new trailer. At the April MARC meeting, the new trailer made its debut for all to see and I announced a fund-raising drive. The original goal was to raise \$5,000 to outfit the trailer. The fundraiser was going along slowly at first and on April 20<sup>th</sup>, I issued a plea via the MARC-list for additional donations. As an incentive to potential donors, I reminded everyone that MARC is a charitable non-profit corporation so their donations would be tax-deductible. I also offered donors of \$25 or more a chance to have their names appear on a donor's plaque which will hang forever inside the completed trailer. I remember thinking to myself "This will get the donations rolling in!" But, my incentives didn't immediately yield any significant results. But then it came... the email that instantly changed the course of my little fundraising drive... it wasn't from me; it was from Otto Arnoscht, N4UZZ! Otto offered to match any donation that was received within the next two weeks. And, oh my, did the donations come! To date, we have raised over \$8,000 – far exceeding the original goal of \$5,000! Many thanks to each and every one of you that donated to the project and a special thanks to Otto for knowing how to really get a fundraiser going!

Meanwhile, plans for and work on the trailer customization was under way. At the April MARC meeting, I presented a couple of interior layout drawings showing how the trailer might look inside when completed. The plans included an operating area in the front 2/3 of the trailer with an interior wall that separates the operating area from a rear storage area. Entering the trailer through the side door, you will be facing a countertop running across the entire length of the operating compartment complete with overhead storage cabinets and filing cabinets below the counter. Permanently mounted radios will be in the overhead cabinets for VHF and UHF ham bands as well as VHF marine, a CB radio, as well radios for operating on State and Federal interoperability frequencies. Ample power outlets (both 120V AC and 12V DC) will be available for connecting other radios and equipment. The interior wall between the operating area and the storage compartment has a pocket door for accessing the storage area at the rear. Inside the storage compartment is generous shelving, drawers, and bins for organizing all the necessary support equipment. There is plenty of space for antennas, feed-lines, grounding equipment, ladders, a generator, tools, ramps, and everything else we will need to set up and operate as a remote communications site.

Features of the completed trailer will include:

- stabilizer jacks
- wheel chocks
- flood lights
- deep-cycle batteries
- 120 V load center
- 12vdc to 120v ac inverter
- 19 inch equipment rack
- PWRGate charge controller
- fold-over antennas
- Astron 35 A power supply
- 12v interior lights
- Filing cabinets
- Basic office supplies
- Generator
- Integrated LCD computer monitor
- 120 V interior lights
- White board
- Bulletin board
- Storage tubes for masts
- Spare tire
- Toolbox
- Leveling blocks
- Solar panel charger
- Exterior PA speakers
- Loading ramps
- Fire extinguisher
- Carbon monoxide detector
- First aid Kit
- Cleaning supplies
- Camp stove

Since work began on the new trailer in April, we've purchased and installed vinyl lettering for the exterior of the trailer, installed leveling jacks at all four corners of the trailer and level indicators on the right front corner, done the electrical rough-ins for the 120 volt and 12 volt systems, mounted four overhead equipment racks and installed the air conditioning unit on the roof. Next added was wiring for the overhead antenna mounts, the floodlights and the PA horns as well as high-intensity warning lights. The old MARC trailer was cleaned out and sold to the Jim Bell Wireless Association at the end of July so all the equipment kept from the old trailer is now inside the new trailer. In order to get all that stuff out of the way of more progress, the next task was to build the interior wall and complete the storage area by building shelves and bins and drawers so we will have a clear path for completing the operating area. In the main operating compartment, we're going to lay a one-piece vinyl floor in order to make durable floor that's easy to keep clean. Carpet will go on the walls and acoustic tiles on the ceiling to help with sound deadening. Next comes a plywood counter top supported by two 3-drawer filing cabinets; one at each end. Finally, overhead cabinets will be custom-built and installed over the counter to serve both as additional storage areas as well as providing a place for mounting the permanent radios.

The electrical power systems on the trailer include a facility to connect the trailer to one of several external power sources. The trailer can be powered by a generator, a 30 amp campground power connection, or ordinary 120 volt household power. There is a 40 ft long power cord as well as shorter adapters to accommodate a variety of situations. If AC power is not available and we are unable to use the generator for some reason, the trailer can still be operated with the exception of the 120 volt lights and the air conditioner. By the way, we ordered the air conditioner with the optional heat strip so it can be used in the winter for heating too. There will be a pair of high-capacity deep-cycle batteries on-board to power the 12 volt systems. A solar panel mounted on the roof of the trailer will keep the batteries fully charged while the trailer is parked at the Red Cross. A 12 VDC to 120 VAC inverter will provide a limited supply of AC power for operating a laptop or other small equipment. When the trailer is operating from 120 volts, the main DC power supply (an Astron 35 Amp supply) will provide charging current to the main batteries via a West Mountain Radio PWRGate charge controller. The main DC bus will supply direct current power to the radios and DC equipment from the main battery bank by way of an integrated 12V fuse panel and distribution panel. All the aforementioned electrical equipment except the main battery bank will be housed in a 19 inch equipment rack. At the top of this rack, will be an antenna patch panel to facilitate quick and convenient reconfiguring of the antennas should there be a need to do so.

As this trailer is being built, I am also drafting printed operating instructions for its safe and proper operation. All phases of using the trailer will need to be documented so that even someone who is not familiar with the equipment can operate it. I have a final draft of the towing operating instruction and a first draft of the set-up and generator operating instructions. Once complete, there will need to be several other operating guides written. The eventual goal is to create a training program and offer initial certification training as well as refresher training so MARC members will be trained on proper operating procedures. This will make all of us comfortable in our ability to safely and properly tow, set-up and operate the trailer should it become necessary. I'm hoping we will regularly exercise this new trailer at public service events and drills and more. I think it would be a shame to have it sit around at the Red Cross all year waiting for field day weekend.

Overall, I believe the Montgomery Amateur Radio Club's new emergency communications unit will serve us well by providing a platform for us to provide communications support during public service events, disaster preparedness drills and real-world emergencies. I am honored to be playing a role in getting our new trailer built and equipped for duty. But, as is the case with nearly everything we do, this has truly been a team effort and would not have been possible without the support and help from each of you!

If you would like to keep up with the latest progress on the trailer construction, check out the Comm Trailer page at the MARC web site: <http://www.w4ap.org/modules.php?name=CommTrailer>



# MEMBERSHIP APPLICATION

Year \_\_\_\_\_

**Montgomery Amateur Radio Club – PO Box 3141 – Montgomery, AL. 36109**

**Renewals** enter, name and callsign and any changes in status.

**\*Note: Senior Members** over 70 please send in application to keep roster updated.

**New Members** enter all available information.

Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_ ARRL Member(Y/N) \_\_\_\_\_

E-mail: \_\_\_\_\_

## Family Members

Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_ ARRL Member(Y/N) \_\_\_\_\_

E-mail: \_\_\_\_\_

Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_ ARRL Member(Y/N) \_\_\_\_\_

E-mail: \_\_\_\_\_

Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_\_\_ ARRL Member(Y/N) \_\_\_\_\_

E-mail: \_\_\_\_\_

Class of License: N= Novice, T= No Code Technician, T+= Code Technician, G= General, A= Advanced, E= Extra

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_

Indicate Membership type below. Membership fees are **due every January 1<sup>st</sup>**. There is a 60-day grace period.

**Family membership** is for immediate family with 2 or more amateur radio license holders **residing at the same address**.

**Associate Membership** is for individuals who **do not have** an amateur radio license, but are interested in the activities of the club and are preparing for exams.

**Senior Membership** is for an amateur age 65 or older.

Check type of membership:

\_\_\_\_\_ Single Membership (\$25 per year)

\_\_\_\_\_ Family Membership (\$40 per year)

\_\_\_\_\_ Senior Membership - age 65-69 (\$15 per year)

\_\_\_\_\_ Senior Membership - age 70+ (no charge)

Associate Membership (\$10 per year)

## The Montgomery Amateur Radio Club

Public Service Since 1938

Amateur Radio

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Montgomery Amateur Radio Club, Inc  
P.O. Box 3141  
Montgomery, AL 36109-0141

