

Chirps & Clicks

September 2007

An ARRL Special Service Club

Since 1932

In This Issue

- KARC Special Event Station
- Special Event Station Pictures
- CyberHam
- Calendar
- Public Service Events
- Contests
- Simulated Emergency Test
- Technology, friend or foe?
- The KARC at 75, Part 7
- SMART Bus Trip to Dayton
- Smart Repeater News



Important Dates

- September 6th, KARC Board Meeting
- September 8th, SMART Club Meeting
- September 10th, 5th District RACES Meeting
- September 12th, Kalamazoo County RACES Meeting
- September 15th, VE Testing
- September 20th, KARC Meeting at Red Cross

KARC Special Event Station



On Saturday August 18th, members of the Kalamazoo Amateur Radio Club descended on Prospect Hill on the East Campus of Western Michigan University from noon on Saturday until nearly midnight that night, to operate the 75th Anniversary Special Event Station. The location was the home of the original meetings of club back in the late 20's and 30's. A Special Event station was established last spring to celebrate our birthday. Frequencies were selected for phone, CW, and psk31.

AVCOM was also dragged from the bowels of the Kalamazoo Airport where it is housed to provide shelter for the 80 meter station and the 20 meter station. The weather held for the event until late in the day when it began to rain. While the light rain got us wet it was still and exciting time and learning experience.

There were a number of other special event stations working during this time including one for Lighthouses that posed a bit of a challenge for the 40 meter team. The group working 20 meter phone found that there was contest going on at the same time and most of the contacts for that frequency are contest contacts with name a state exchanged. The 15 meter band was flat with no contacts with PSK31 and our intrepid CW operator found 30 meters pretty vacant. JeRB did manage to get 8 CW QSO's logged for the event.

Band/mode	Contacts
20 Meter Phone	31 contacts
20 Meter PSK 31	7 contacts
30 Meter CW	2 contacts
40 Meter Phone	105 contacts
40 meter CW	6 contacts
75 Meter Phone	25 contacts

This table shows the bands, modes and contacts for a total of 176 QSO's for the 12 hours.

20 meter phone had 31 contacts most of which were contest contacts. There was at least one DX contact allegedly from the Canary Islands that generated some excitement in Avcom. The contacts tended to follow the day and move to West Coast as time wore on. The 20 meter phone team consisted of Charlie Chapman KB8SFR, Melissa French, and Simon Bohme KC8ZYD.

Our 30 meter team consisted of JeRB working from his Car and dipole set up in the local trees. JeRB reports that he had a rousing 8 QSO's on CW. He notes that the 30 meter band was very inactive and moved down to 40 meters and was able to get in an additional 6 contacts. JeRB also provided moral support and discussion on all things radio for those gathering around.

Don WD8IDJ and Phil Eikhoff KC8TQM worked 40 meter phone along with Hal Thomas KD8FFX, Simon Bohme KC8ZYD. The group worked out of a 5th wheel RV supplied by Hal. They were able to make 105 con-

tacts during the event and worked a station in Nova Scotia, VE1SKY. Overall, they were the busiest band with contacts.

PSK31 was scheduled to operate on 15 meters, but after setting an antenna for the band it was found to be vacant. Several CQ spec event calls went out with no response. 10 meters was also very inactive and as a result and second 20 meter antenna was put up for PSK31. We had 7 contacts with one LU7KAT from Argentina and another VA7KOJ from Vancouver, British Columbia. We were able to demonstrate PSK31 to several KARC members and guests alike.

75 meter phone was the province of Jim Keesler, K8EFX and Don Verhage KC8OQM. Jim reports that he made 25 contacts and they were typically some local stations. He notes that as the night wore on, more stations were heard from which they expected given the usual propagation of 80 meters.

Special recognition goes to the people who helped set up and operate the station. These include as memory provides, Phil Eikhoff KC8TQM, Don Eikhoff WD8IDJ, Jim Keesler K8EFX, Hal Thomas KD8FFX, Charlie Chapman KB8SFR, Dave (Wild Dave) Nawatny KC8WLD, Jim Kirkland K8EMT, Tom Oliver KC8QFF, Don Verhage KC8OQM, Simon Bohme KC8ZYD, Jack (can you use some rope) Price KA8AOB and JeRB K8WPI. JeRB gets special thanks for his work on documenting the history of the KARC and of local amateur radio in general. We are also indebted to Captains Patricia Holton and Carol Dedow of the WMU Police and WMU Parking Services for the support and efforts to make this event even take place. Special thanks also to the Kalamazoo County Office of Emergency Management for their support in organizing the event. For more photos of the event see <http://pictures.kb8sfr.net/KARC75thAnniversarySpecialEventStation?page=1>

Filling out QSL cards and certificates remains the last task. Lessons learned include that you cannot over plan an event like this. Pay attention to details. An event like this is very, very dependent on people participating. We have a good group of people who will step out to help each other and as a legacy from its beginnings, one we should strive to keep going over the next 75 years. I thank you all for coming out for our Special Event.



More pictures on page 2

More Pictures From Our Special Event Station



Here is the early shift. Back Row: Ron N8CML, Art NK8X, Hal KD8FFX, Don KC8OQM, Phillip KC8TQM, Charlie KB8SFR, Don WD8IDJ, Simon KC8ZYD, John KC8ZTJ, Jim K8EXF, JeRB K8WPI, Dave AB8DS. Front Row: Dave KC8WLD, and Tom KC8QFF.

Here Jim Keesler sets the antenna for his 80 meter station.

September

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2 Kalamazoo County UHF net 444.650 + 131.8	3 Labor Day	4 SMART Club net. 147.040 8:00 PM	5 LOSTeam 5th District Hospital Net	6 KARC Board meeting Red Cross 7:00	7	8 SMART Club Meeting Gigi's Restaurant
9 Kalamazoo County UHF net 444.650 + 131.8	10 5th District RACES meeting. Perkin's Restau-	11 SMART Club net. 147.040 8:00 PM	12 RACES meeting at KCSO EOC	13	14	15 VE Testing County Sheriff's Office
16 Kalamazoo County UHF net	17	18 SMART Club net. 147.040 8:00 PM	19 LOSTeam	20 KARC meeting at Red Cross	21	22
23 Kalamazoo County UHF net	24	25 SMART Club net. 147.040 8:00 PM	26 LOSTeam	27	28	29
30 Kalamazoo County UHF net						

CyberHam

Here's a website for the people that took over Comdac's' business. They're located in Gaylord, and it looks like they're planning to be at our HamFest in October.

<http://www.elmershamshack.com/>

Your name in print! Here's a place that does custom engraving. Maybe have your call sign on a shot glass?

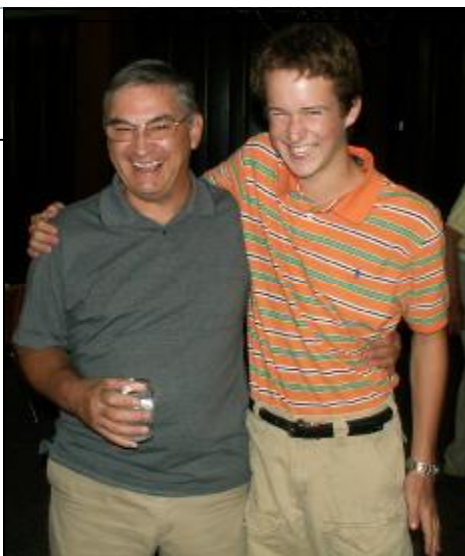
<http://mkengraving.com/gallery.html>

For information on joining Kalamazoo County RACES, please visit:

WWW.NK8X.net

With a name like "Hamstuff" it has to be good!! Doesn't it?

www.hamstuff.com/



"Wild Dave" KC8WLD, and Simon, KC8ZYD at the recent RACES banquet.

Check out the new content at

WWW.K8KZO.net

Public Service Events

October 6th, Simulated Emergency Test



October

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2 SMART Club net. 147.040 8:00 PM	3 5th District Hospital Net 7:00 PM	4 KARC Board meeting Red Cross 7:00	5	6
7 Kalamazoo County UHF net	8 5th District RACES meeting. Perkin's Restau-	9 SMART Club net. 147.040 8:00 PM	10 RACES meeting at KCSO EOC	11	12	13 SMART Club Meeting Gigi's Restau-
14 KALAMAZOO HAMFEST UHF net	15	16 SMART Club net. 147.040 8:00 PM	17	18 KARC meeting at Red Cross 7:00	19	20
21 Kalamazoo County UHF net	22	23 SMART Club net. 147.040 8:00 PM	24 KARC Radio Fun Night Returns!!!!!!	25	26	27
28 Kalamazoo County UHF net	29	30 SMART Club net. 147.040 8:00 PM	31			

Contests

MI QRP Labor Day CW Sprint, 2300Z Sep 3-0300Z Sep 4

ARRL September VHF QSO Party September 8 - 10

Arkansas QSO Party -- CW/SSB/PSK31, sponsored by K1ARK from 1400Z Sep 8 to 0600Z Sep 9 and 1500Z-2400Z Sep 9

Tennessee QSO Party -- CW/Phone/Digital, sponsored by the Tennessee Contest Group from 1800Z Sep 9-0300Z Sep 10

North American Sprint -- SSB, 0000Z-0400Z Sep 18

South Carolina QSO Party -- Phone/CW/Digital, sponsored by the Columbia Amateur Radio Club (CARC) from 1300Z Sep 15-2100Z Sep 16

QCWA Fall QSO Party -- Phone/CW/Digital, sponsored by the Quarter Century Wireless Association from 1800Z Sep 15-1800Z Sep 16

Texas QSO Party -- CW/Phone/Digital, sponsored by the Northwest Amateur Radio Society (NARS) from 1400Z Sep 29-0200Z Sep 30 and 1400Z-2000Z Sep 30

Fall QRP Homebrewer Sprint -- CW, sponsored by New Jersey QRP Club from 0000Z-0400Z Sep 25

FISTS Coast to Coast Contest -- CW, sponsored by FISTS Northwest Club, K7FFF, from 1700Z Sep 29-1700Z Sep 30

Classic Exchange -- AM/SSB, from 1300Z Sep 30-0700Z Oct 1 (CW is Oct 7-8)



Simulated Emergency Test Scheduled For October 6th

The annual Simulated Emergency Test is fast approaching and is going to be held on Saturday, October 6th. For this year's test, we are planning an unseasonable ice storm (yes, in early October), taking out electricity and telephones to the entire southwest Michigan area. RACES members and others that would like to become RACES members are being asked to participate. Operators should stand-by their radios at noon and will be deployed to various locations at that time.

For those not familiar with the yearly test, amateur radio operators from across the country practice their skills of communication using fixed, portable, and mobile radios between key facilities such as fire stations, hospitals, emergency operation centers, Red Cross chapters, and a host of other locations. Using only emergency power, hams make contact and pass messages with other communities, counties, states, and even other countries. Points are then awarded by the number of hams participating, the number of agencies that were served during the exercise, the number of repeaters used, and other criteria set forth by the American Radio Relay League. Although we've never taken part in the exercise just for points, by having a well planned and successful drill the points come along almost automatically.



You can make great use of your LOSteam or field day set-ups for the SET.

In the past few years the Kalamazoo RACES group has been at the top of scoring in the Michigan Section of the ARRL, achieving scores well above larger communities with many more ham radio operators. In 2006 though, Kalamazoo County was the top reporting group in the nation, scoring higher than entire states, and even a few divisions made up of many states! For S.W. Michigan, five of the top ten scores were posted by 5th District counties by working together and supporting each other by training together and providing mutual aid.

If you have any interest in playing a part in this year's SET, please contact Art Snapper, NK8X or myself, Charlie Chapman, KB8SFR and we'll make sure that you have a role to play, and a job to do.

Technology, friend or foe?

Art, NK8X

Recently, Jim Wades posted an article about an internet "cyber attack" on the country of Estonia. Reading that article after witnessing the failure of area public safety communications during the recent storm, prompted me to put into words an issue that has been bothering me for years.

LAYERED TECHNOLOGY INCREASES RISK OF FAILURE IN COMMUNICATIONS

Lets rank the complexity of different types of voice radio systems in use by Amateurs and by Public Safety. For the sake of simplicity, we will assume that they have been engineered to provide adequate coverage, with minimum hardware failures. Consider that in order to work properly, each "layer" of technology has to be functioning correctly. As the complexity increases, the risk of failure increases.

1. Simplex analog. (146.52, State Fire)
2. Simplex digital. (D-Star or P25)
3. Analog repeated - Single site (444.65 repeater)
4. Digital repeated - Single site
5. Trunked single site (Public Safety only)
6. Repeated with multiple transmit or receive sites. (County fire after the "Upgrade")
7. Networked analog simplex. (i.e. EchoLink)
8. Networked digital simplex. (i.e. D-Star networks)
9. Networked digital repeated. (i.e. D-Star networks)
10. Networked digital repeated requiring users to be authenticated.
11. Networked digital repeated with multiple transmit and receive sites requiring users to be authenticated.
12. Networked analog, trunked, repeated with multiple transmit and receive sites requiring users to be authenticated.
13. Networked digital, trunked, repeated with multiple transmit and receive sites requiring users to be authenticated. (i.e. MPSCS)

In example #1, there should be no communications outages between 2 or more stations. If interference is heard, a frequency change can resolve the issue.

By switching to digital (example 2), interference will not be heard. It will begin to cause syllabic dropouts. If the interference increases, complete circuit failure occurs. The users are quite likely to blame it on the equipment rather than the interference.

Examples 3 and 4 should work properly, unless there is an environmental problem with the repeater. Power outages and antenna damage come to mind.

Example 5 lists a trunked radio system. Trunked systems try to "squeeze" more conversations into a given number of repeated radio channels. Users of different talk groups cannot hear each other, therefore they can't politely ask other users to standby or change to a simplex channel when the repeaters get busy. Instead, the trunking system controller sends a signal causing the users to hear a "bonking sound" indicating the system is busy. Police traffic may have to wait for a schoolbus conversation to end, before they can transmit a message.

Adding additional sites to your standalone repeater (example 6), adds elements of signal distortion and possible link outages to remote equipment due to environmental conditions.

Explaining the risks associated with networks and user authentication, is beyond the scope of this short article. Let me just summarize it by saying that at some point, the risk of failure exceeds the benefit of the enhanced features.

There are many variations of each described above.

Hopefully this article will help you understand why ham radio comes to the rescue so often, when the "chips are down".

The KARC at 75, Part 7

K8WPI, JeRB

New officers for 1957 included Seth Lover as president, Stan Briggs W8MPD as VP and Harley Cook, W8WIP, as secretary-treasurer. Since Stan did not have a license the previous year, he certainly made progress as that is not a Novice class call sign. Harley put his mark on the *Newsletter*, offering the first cartoon or artistic figure to appear. Someone in the club was well-connected, as with Harley came a "Ditto" machine for duplicating the newsletter. This year also marked the beginning of our still used self-introductions at regular meetings, and an *official* KARC Membership Card. In disappointingly typical KARC fashion, it took an executive board meeting and four design options to settle the membership card matter. Our membership roster stood at 42 full members, two associates, and one honorary member, Mr. Marburger. This is also the year we began taking summers off, to compliment our host's schedule.

Within the hobby, CONELRAD monitoring was now required for all hams, probably the first and only Governmental invasion of our ham shacks; you never know when those pesky Reds will appear over the horizon. On another disturbing note, our recent license debacle (2007), seems to have precedent; enough said unless I mention 1957 is also the year we applied for and were granted, *Not For Profit* status. OK, *now* enough said!

Under the lead of Doc Moe, W8LJZ, we began a series of theory and Morse classes, both for Novice and General class applicants. Classes seem to have been held both spring and fall at Portage High School and continued for many years. Evidently these and our previous on-air code efforts were well rewarded, as for the third consecutive year the KARC Novice group took the number one Novice spot in Field Day. By 1958, Kalamazoo County lead the state in the number of Novice class licensees. It is mentioned in our archives that the first Technician class operated VHF Field Day station posted a very fine showing.

Just for fun, the first KARC hidden transmitter hunt was scheduled for June 5, 1957, perhaps a warm-up session before Field Day. Field Day preparations were made, again with special attention paid to the Novices. LaRue Rice, K8BXX, reminded the crowd, "The Novice Field Day is an experience that comes once in a lifetime, and holds memories that will linger for a long time, I know." Yes, I know

too! For reference, at the time the Novice class license which was instituted in 1951, was only available for those never previously holding an Amateur license, had a term of one year, and could not be renewed; get in or get out.

In yet another display of "radio club means R-A-D-I-O," in 1957, the KARC decided it should build VHF transceivers to improve local emergency communication.² Individual KARC members were no strangers to VHF, and the war proved the usefulness of short-range VHF communication. Although there were plans floating around for VHF rigs, there were no VHF transceiver plans in the 1956 or '57 *ARRL Handbook*. The only commercial product I found is the original Gonset Communicator, available for either 6 or 2 meters at \$229.00, which was quite expensive. The famous Heath "lunch-boxes," were still two years away and their popularity along with the "discovery" of the fun and usefulness to be enjoyed on these new bands brought forth an onslaught of very popular VHF transceivers which of course, were AM only. Quoting a *Gazette* article: "The radios are designed to provide effective emergency communication for immediate use in case of a local disaster."² The little transceivers were about 5X6X9 inches and weighed about five pounds. About 20 builder-owner units were scheduled as "parts-kits", a photo in the *Gazette* article shows many of the rigs and their owners. This was quite a project, and I believe well reflects a time in our hobby and the spirit of the club. The project was discussed at both regular club and board meetings. There is conflicting information concerning the design however, which I will share and you will have to arrive at your own conclusion, if any. When the idea was conceived, it appears Seth Lover set out to design the rig. Over the course of the next six months or so, a few circuits were published in *QST* and *73* magazines. Originally, my interpretation of the notes suggests Seth was given the go-ahead to design the radio. A few months later, a drilling template and parts list appears in our Archives. However, at the suggestion of one of the project committee, it was evidentially decided to continue the project using the design from the April, 1956 *QST* article. The Project Committee, whose members are not specifically named, but included Neil Schreur, W8PDP, and Seth Lover, seemed to put the kai-bosh on the project in progress.

Continued on next page

Take the SMART bus to Dayton, Friday May 16, 2008!

The SMART club is planning a bus trip to the 2008 Dayton Hamvention. Spend a day at the 2008 Dayton Hamvention and enjoy the experience! No driving worries (and no gasoline to buy); No parking inconveniences; No ticket lines; No hauling your new treasures long distances. The comfortable bus will leave Kalamazoo about 4am on Friday May 16, 2008 and arrive in Dayton around 8am, just as the flea market opens. You get a whole day to shop or just look around. At 5pm, the bus will pick up you, and all your newly acquired treasures, and head back to Kalamazoo to arrive around 10pm. The package includes: Luxury motor coach travel to and from Dayton; Continental breakfast on the bus; Door-side drop off and pickup in Dayton; Hamvention ticket; Noon-time opportunity to place your purchases on the bus; and Dinner on the return trip. The price for all that is only \$100. A \$20 down payment will reserve your spot with the remainder due by April 15th. Make checks payable to SMART and send your reservation to: Dennis Boersema, 7820 N. 14th ST, Kalamazoo MI 49009. Please include contact information with your payment. Seats are limited so get your reservation in now! Visit the new <http://www.K8KZO.net> web site for more information. Click on NEWS and then the Dayton Excursion item.

I already had the club's radio, which has been at our station forever; unfortunately, it doesn't look anything like the units shown in the *Gazette*. I looked at the radio and the template, which inspired me to disassemble our rig. WOW! It was immediately obvious this is NOT a KARC project transceiver! The construction uses not only techniques but materials which would not typically be used by the "average" ham of the day. Whoever built this rig had access to specialized materials and tools. Additionally, a very advanced Nuvistor is used in the front end, which does not fit with the time frame of the project. I acquired two more units, one from Chuck Agosti, WD8AXA, the other from Jim Kirklin. Chuck's unit was from Ed VanPeenen, while Jim built his with the club, although due to his young age and place of residence did not make many club meetings or building sessions. Jim built his rig at home. With no documentation available other than drilling template and parts list, I tracked down the original *QST* article. I can conclusively state that our club transceivers have nothing in common with the article rig, other than operating on two meters. With only 3 of the original rig owners still alive, I started tracking down the two others. Stan Briggs, although evidently alive, appears to be not well, and neither he nor his son responded to my inquiry. Jim Tiefenthal, now in New York, offered as much information as he had, which

unfortunately does not contribute to answering the question. What we have are three radios, two definitely of the "club project" group, and one of a later endeavor. I do not have a schematic of either radio, although only the "odd-ball" seems to meet part of the design goal of an internal multi-source power supply. I doubt we'll ever know specifics of origin and design for sure. Whatever radios I have will be at the KARC special event outing on August 18th, along with other treasures from KARC and personal inventory.

Stan Briggs, although leaving Kalamazoo for Wyandotte in the 60's, was an occasional member and frequent contributor in absentia to our *newsletter*, and even *Chirps and Clicks*, using the pseudonym Micro P. Dipole, with an address of 73 RF Gap, Wheatstone, Mi. If you don't find the address charming, I suggest some radio reading. Stan occasionally showed up at Field Day as a visitor, and I am quite sure Stan and his XYL operated CW one year with us at Prairie View Park to fill in the void while Doug and I were on 40.

To be continued in October



Trio of KARC 2 M rigs: 1957 project rigs from Jim Kirklin, Ed VanPeenan, and on the right, the still unidentified later project. A delightful and expensive Millen reduction drive is used for the tunable receiver. Below the tuning scale are volume and regeneration controls and the transmit/receive switch to the far right. I am sure all of these rigs used surplus microphones, which were not included in the parts list. Ed's rig is tuned to the index mark on his dial, indicating approximate local NET frequency. A separate power supply was used, which is not in the photograph. The unidentified rig is built in a Heath instrument cabinet, and is complete with meter (round, upper left) and specifies an "Xtal Mic," so you wouldn't plug in a carbon mic, which would not work. I showed this rig to Norm Harvey, W8RTY who was active in our club then and an engineer at Heath, he claimed ignorance of it. The extremely nice construction and front panel labeling are clues, but to exactly whom?

SMART club repeater site changes.

The SMART club is working with the owners of the tower site where our repeater is located to improve our signal and reliability. We are working on changing and adding antennas, fixing and improving some of the coax, adding backup power, and other improvements. We have already made some changes that might improve our signal to the North. However, as part of this project, we have a need for some low loss coax or hardline. Lengths needed include 130', 175' and 210'. If anyone can donate low loss coax or hardline, please let me know. You can email me at n8cml@arrl.net or find me on either the Tuesday SMART net or the Wednesday Races net.



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Our 75th Year!

For additional copies or submissions
Please write to:
Chirps&Clicks@W8VY.net

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www.W8VY.net

**Kalamazoo
Hamfest**

Sunday October 14th
Kalamazoo County Center Building
At the Kalamazoo County Fairgrounds