The Radio Hill Gazette

A publication of the Schaumburg Ham Radio Club (SARC)
August 2017

From the Editor

Well this summer is quickly closing, and for me it means a bit more time to be on the air during the evening hours. Hopefully others too will have a bit more free time to get on the air too. Don't forget to get your antennas ready for Winter while the weather is still good. My wire dipoles actually stayed up the entire winter last year, but not without some issues with those wonderful PL-259 connectors… Water is the enemy of cables and connectors and thought I thought coax seal would do the trick, it still failed.

On another note, in my effort to help bring youth into the world of amateur radio, I'm doing a mini field day for the local Scout troop my son belongs to this Monday. I've got about a 90 minutes to setup my station, get on the air, and show the various aspects of the hobby. I want to say thanks to some of the guys I've talked to in the club who've offered suggestions and help with setup. They brought up so good ideas, with showing off some of the QSL cards I've received, explain the Emcomm aspect since it backs the community services aspect that scouts are involved with. Hopefully I can get permission to take a few photos and do a little write up.

Mike K9KQX

From the President

The unofficial end of summer is nearly upon us. So, it's time to get your final adjustments made to your antennas and check your radio interfaces in preparation for contest season. If you have an HF rig and a general class or higher license I highly recommend getting on the air for a contest or two. You don't have to spend all weekend making contacts and you certainly don't need a 1500W super station. I've participated from plenty of contests from my home with 100W and a few dipoles strung up in the attic.

Participating in a contest can do several things for you, your station and your log. First it's a great reason to get on the air. You'll hear plenty of stations to contact just by spinning the dial. If you're interested in attaining any of the ARRL awards for worked all states (WAS) or DX Centruy Club (DXCC, making contacts with stations 100 other countries) you can quickly knock out contacts to plenty of states or many different countries. A contest is also a great exercise to help hone your public service skills, specifically working with non-ideal noise conditions. Compared to a VHF repeater, HF isn't the clearest audio but it is certainly usable. Listening to a contest and pulling call signs out of the noise, both from the environment and from multiple stations on the same frequency, is a great way to hone your ear to noisy conditions. When would you use that in public service? How about at our yearly Hoffman Estates Parade. What happens if net control calls you right as you're walking by the marching band while the drum line is warming up?

Getting into a contest is easy. A Google search for "HF contest calendar" or something similar will turn up plenty of web sites listing upcoming contests. Most of them also link to the rules for the contest. If you're only going to make a few contacts then there are just two things you need to pay attention to in the rules: the objective and the exchange. The remainder of the rules deal with how many operators are at your station, how much power you're using and a host of other ways to enter the contest that for the casual operator can be boiled down to: Single Operator Non Assisted. You'll need to put that on your log when you submit it.

When you're looking at the contest rules the objective will tell you who you can contact. In the North American QSO party earlier this month the object was to contact as many stations within North America as possible which is a good way to finish a WAS award. The exchange was very simple, your name and state. The operator at the other end will then give you their information. Early next month is the Worked All Europe contest where you can fill up your DXCC list quickly. Here the objective is to contact as many stations inside Europe during the course of the contest. This exchange is only slightly more complicated: RS, which is a measure of received signal strength. All you need to do is say 59. Then give a serial

number. This is actually very easy: the first contact you make gets the number one, the next contact is two, and so on. After you send your information, you'll get a signal report and serial number back from the other station. Simply record this in your log.

Happy Contesting!

Matt
AC9IGMatt

AC9IG

Construction Project

Gary N9VU: Gary reports that construction projects will resume in September starting on the last Saturday of the month. There are two Hamfests occurring in late September and those will likely conflict with CP attendance. Also discussed the need to clear our over-loaded storage cabinets in search of items that could be sold during these two final Hamfests. Will need to find some alternate time to visit the basement storage area to select items.

Miscellaneous activities / updates

Repeater updates - Kent W9KAO has received 70cm cans and the new antenna arrived. Expecting additional $200 will be needed for the final mechanical items to install at the Plum Grove tower during Labor Day weekend. Station Master 7dBi appears to be a better solution over the trusted J-Pole option.
President's Report - Matt AC9IG North American QSO party this coming weekend(Aug 20th). Provide Name/State include ARRL membership. Schaumburg's Hyatt Regency is hosting the DXCC convention site to be held during the third week of September (15/16). Saturday venue is hosted by Rick Roderick K9UR and Paula Uscian K9IR will also be presenting. Chicago Marathon in mid-October on a Sunday. Always looking for Hams to assist. Contact Matt for more information about volunteering for the Chicago Marathon.

Public Service - Rob N9MVO: Rob N9MVO: Thanks to all who participated in support of the Schaumburg Park District Triathlon. All stations were manned on schedule and the event went well with only two minor incidents where we handled traffic between Hams and Park District officials. Fourth of July parade was successful; only a few incidents of bike riders needing mechanical help and otherwise a good event.

Social: Roger Ryan W9RDR. Club's [Relocating away from Pilot Pete's] Pizza Party will be 6PM October 14th Saturday night at Lou Malnati's in Schaumburg (Roselle/Schaumburg Road).

Education: Leo N9NBH reported his plans for a fall TECHNICIAN Class are underway with Debbie Wolf of the library staff with a TECH class starting Oct 14th. Library facility on Hassle Road in Hoffman Estates is part of the Schaumburg Library and will be the site used. There is no charge for classroom and there is also no charge for students. Burt Shultz AB9CV is available to join Leo's Instructor staff.

Net Check-ins – Leo N9NBH

SARC Net Check In's For Thursday, July 13, 2017:

The following hams checked in to the net this evening. The question for the evening was what do you envision ham radio will be like in 60 years?

N9VU	Gary
N9NBH	Leo
K9KQX	Mike
N9MVO	Rob
W9RKK	Robert
KD9HIJ	Ken
AC9EM	Steve
N9LQ	Joel
KD9ICS	Priscilla
KD9HQP	Nick
AB9SG	Ken
KD9FMN	Paul
K9DFS	Dirk
KD9IXM	Ken

Check in totals: 14

VE Testing Results

Steve Karsen AC9EM Reports
NEXT EXAM: Sept 2nd at Schaumburg Park District CRC;
Results for Aug 5th. 2017, test session:

NUMBER NEW LICENSE

CLASS	TESTED	UPGRADE
Technician	1	1
General	2	2
Extra	3	0
Total:	6	3

****TECHNICIAN****

****GENERAL****

George S Frahm	KD9JBS
Priscilla A Miller	KD9ICS
Nancy L Migaua	KD9EHW

****EXTRA****

All of us at SARC would like to congratulate all those that received or upgraded their license this month, and we welcome you to the amateur radio community. Hope to hear you on the air. Should you have any questions, come join SARC at our regular monthly meeting on the 3rd Thursday of the month or stop in at one of the Construction Meetings. Check the SARC website for times and locations.

Raspberry Pi Project

by Mike K9KQX

This is a followup to the presentation in July on the Raspberry Project I did.
To recap, my project was a remote antenna switcher built around using a Raspberry Pi 3 with a Python web app for the interface. Programming it is a bit beyond the scope of this write up, but the Raspberry Pi can be used for a whole range of electronics projects ranging from automation / electronics projects to Ham radio. What makes the Raspberry Pi unique is the fact this small form PC has a input/output header which can be used to interface with various kits, or homebuilt projects driving relays, motors, actuators. It can read switch inputs, and with the right add on's can read analog signals through the use of an A/D converter.

In my setup, I built my own add on board using a Perf board and the A/D converter listed below, and an 8 channel common collector Transistor IC used to drive relays.

For info on building the A/D circuit and programing visit this page
https://learn.adafruit.com/reading-a-analog-in-and-controlling-audio-volume-with-the-raspberry-pi

As for the 8 channel Output IC, that I basically connected the inputs to various GPIO output pins, and using the Python programming commands enabled the pins to drive the inputs on the IC chip. There was no specific pins, other then matching output pins not in use with the A/D converter circuit above. I picked 8, wrote down the GPIO numbers I chose, which were randomly picked, and matched those so I knew what would turn ouput 1 thru 8 on the IC. There are a ton of program examples on how to do this on the internet, so a good search will most likely find some examples that you can utilize and modify for your own needs.

Below are some of the parts I used, but only the top 4 are needed just to get the Raspberry to work as a PC

Parts

• Raspberry Pi 3	MCM part 83-17300	$35
• Raspberry Official Case	MCM part 83-17306	$8.99
• MicroSD card 8 to 16gb	MCM part 83-12718	$16.99
• Raspberry Pi 5v Power	MCM part 28-21442	$8.99
	Total	$69.97

Optional Parts for IO

• PiFace Digital 2	MCM 83-16402	$32.99
• GPIO Perf Board	MCM 28-20205	$12.49
• 7" LCD touch screen	MCM 83-16872	$60
• SmartPi Touch Case	MCM 83-17628	$24.99
• 10" LCD Monitor	MCM 83-17000	$87.99
• IC A/D conv MCP3008	Adafruit #856	$3.75
• IC 8ch transistor out ULN2803	Adafruit #970	$1.95

Prerequisites:

Computer with a MicroSD card or SD card reader is required to program the memory card. If you don't have this an external USB card reader for your PC is required to program the MicroSD card. Alternately, you could spend a little more and buy a preloaded MicroSD card, but going this route means if you mess it up, you won't be able to make a new one with out the microSD card.

Raspberry OS install

Source Software https://www.raspberrypi.org/downloads/raspbian/

Download the Raspbian Jessie with Desktop pick the Download.zip file. This is the full blown Linux OS with a working desktop, and includes Libre Office which is an open source Office app similar to Microsoft Office

Source installation instructions https://www.raspberrypi.org/documentation/installation/installing-images/README.md

WRITING AN IMAGE TO THE SD CARD

You will need to use an image writing tool to install the image you have downloaded on your SD card.

Etcher is a graphical SD card writing tool that works on Mac OS, Linux and Windows, and is the easiest option for most users. Etcher also supports writing images directly from the zip file, without any unzipping required. To write your image with Etcher:

- Download Etcher and install it. Download from here https://etcher.io/
- Connect an SD card reader with the SD card inside.
- Open Etcher and select from your hard drive where the Raspberry Pi .img or .zip file you downloaded early. This will be the source files that will end up creating a bootable SD card.
- Select the SD card you wish to write your image to.
- Review your selections and click 'Flash!' to begin writing data to the SD card.
- When SD card is finished writing, remove from your SD card reader and insert into the side of the Raspberry PI.

Initial Boot

- Connect the raspberry pi to an HDMI Monitor
- Plug in a USB Mouse and Keyboard
- Plug in the USB power adapter into the side, be sure that the USB adapter can provide a minimum of 2A of power at 5 Volts DC. If you have an old Cell phone charger that can handle 2A of current then you could use that rather than buying a new one
- During boot up you should see the Raspberry logo, and finally the desktop. Unlike Windows, the start menu is at the top of the screen. If you see nothing, then the microSD card isn't inserted correctly or the Operating System didn't write from the image file correctly. Basically no OS means the raspberry pi won't boot and you won't see anything on the screen

System Update Source https://www.raspberrypi.org/documentation/raspbian/updating.md

First, update your system's package list by entering the following command:

sudo apt-get update

Next, upgrade all your installed packages to their latest versions with the command:

sudo apt-get dist-upgrade

Generally speaking, doing this regularly will keep your installation up to date, in that it will be equivalent to the latest released image available from raspberrypi.org/downloads.

At this point your Raspberry Pi is basically ready for use. From here you can investigate many of the tutorials on the internet for installing applications, and learning how to use the GPIO pins to control external devices.

Things you can do

- Fldigi and FLRig control, is natively available from the Raspberry Pi "Add Remove programs" Just search for both and install
- PiFace Digital 2 I/O board option, this board allows for 8 Digital Inputs and 8 Digital outputs, along with 2 10amp relays, fully programmable using Python Program language

- Libre Office, a Linux equivalent of Microsoft Office comes standard on the Raspbian OS
- VNC, remotely control your Raspberry using VNC, specifically you'll need to download on your Windows PC, Real VNC viewer, which has the needed security protocols that TightVNC doesn't have
- Motor control, there are many examples and add on boards to allow control of servo motors
- Light control, using the various I/O modules or building your own interface using the ULN2803 IC chip you can drive 5V relays to switch high voltage devices
- Temperature monitor- using the A/D converter IC MCP3008 you can read a 0-3.3v input, scale it and convert it to read temperature, humidity, elevation, and variable resistor positons.

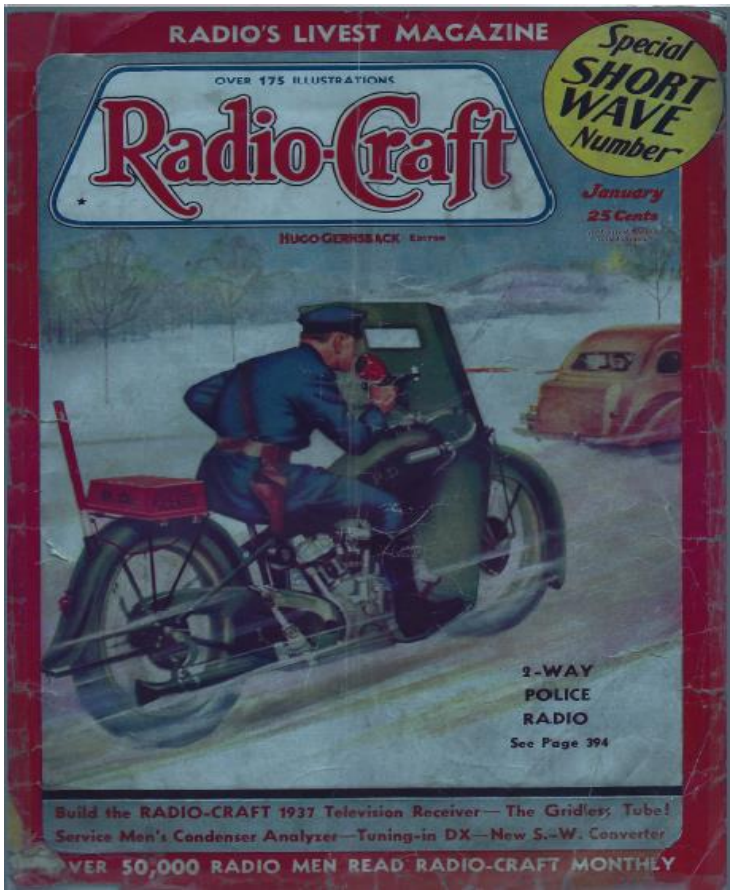
Summary

From a Ham radio perspective, the Raspberry Pi's low cost and flexibility for I/O interfacing can be used for a variety of projects. I've run Fldigi, FLRig control, and a logging program. There is Satillite tracking software you can install, and various apps for youth to learn the concepts of programming, along with a whole range of programming languages for more experienced computer gurus. I personally think this makes a great gift for a middle school child that has some interest in computers and science and could open the doors for many kids to get in to STEM fields. You're only limited by your imagination as to what you can do with this thing.

Useful Links

http://www.hamblog.co.uk/top-10-amateur-radio-uses-for-raspberry-pi/
http://www.raspberrypi.org/
http://www.mcmelectronics.com/browse/Raspberry-Pi/0000002092
http://www.raspberryconnect.com/raspbian-packages-list/item/71-raspbian-hamradio
http://www.stargazing.net/david/rpi/hrrpi.html

1937 RF Burns and Visit to AM Broadcast Transmitter Site



Cliff Sowka K9QD

While attending the Antique Radio Club's annual summer flea market the first weekend of this August I happened to find a 1937 magazine called Radio Craft. An interesting article about RF Burns occurring during an AM Broadcast-Band tower installation back in 1937 triggered my recollection of a previous tour SARC membership participated in at local AM Broadcast Station WIND. Our host related his own experience with RF Burns; some background is reprinted below.

This particular 1937 article reads ***WJZ Tower Burns Workmen***

"An interesting case of absorption of power in a RESONANT CIRCUIT *occurred last month in erecting the new 640-foot antenna tower for station WJZ at Bound Brook, New Jersey.*

The new antenna tower which is located near the old one will be a 3-cornered affair, the entire weight resting on a single porcelain insulator. As the steel section were added, the structure approached nearer and nearer in resonance to the frequency of the station. As a result, the transmitting characteristics of the station were being seriously affected, and what is even more serious, the workmen were being burned by the energy stored up in the structure. The difficulty was finally eliminated by erecting a temporary radiator for the station about a half-

mile from the previous location. Another way might have been to load up the tower under construction with sufficient inductance to ground so that the resonant frequency was far below that of the transmission frequency." – *Editor Radio Craft 1937*

In a previously published Radio Hill Gazette article, it was related that our tour guide Paul Easter (Chief Engineer for WIND and WYLL) had also experienced an RF Burn incident at the 50KW DesPlaines transmit site.

Here is a reprint of SARC's WIND Tour and how it relates to the newly-found 1937 Radio Craft article:

Powerful RF Fields Near the Tower

Paul Easter related an interesting construction event near the WYLL 50KW antenna in DesPlaines: A highway construction crane on the ground near the I-294 overpass just west of the transmitting tower lot-line working to lift some materials upward toward the crew on the highway above experienced an arc from the payload cable to the bridge structure. The crane operator noticed an energetic arc when his cable brushed near the structure and he immediately surmised that his metal tracks of the crane had somehow contacted some exposed underground utility high voltage cables and therefore his equipment had been energized to some deadly voltage; a voltage high enough for him to notice the hiss from the cable-to-bridge steel structure.

The experienced operator remained in the equipment cab. Stepping off from the crane to the ground could place his body in line with an energized piece of equipment looking for a path to ground and therefore instant death. Leaping from the cab may offer a way to avoid becoming a grounding path assuming the leap was broad enough and away from the equipment to achieve at least a fifteen foot gap [think of representative power line insulator length for 360KV lines] but he properly remained in the equipment until the support crew could determine what dangers were possibly present. A quick response from Commonwealth Edison's emergency team confirmed there was no transmission line underneath the area where the crane was positioned so they requested the crane operator demonstrate the arc he was able to draw from the bridge structure; they wanted to ascertain what energy level was present.

The operator swung the cable near the bridge structure and promptly drew an arc for all to observe. ComEd's emergency team discussed the situation and compared this observance with previous power line disruption events but could not draw any analogy to their empirical knowledge. They looked around to surrounding possibilities to explain the arc and noticed the WYLL Transmit tower standing in the field just east of them. ComEd quickly summoned WYLL transmit engineer Paul Easter for an additional assessment. Paul observed the arc was surely present but also noticed it was a long, feeble trace with no burn strength; at least not enough to bring either of the two contact surfaces to any level of incandescence that a power line breach could be capable of. Paul decided to ask for, and received approval from, the station executives to momentarily pull the WYLL transmitter off-the-air. Sure enough; the arc condition could no longer be repeated. Problem solved. His knowledge of near-field energy levels around a 50KW tower proved correct. The crane's payload cable was nicely capturing energy from the transmit tower and grounding that energy into the steel girder of the Tollway's bridge structure. Problem solved but much angst was experienced by everyone and the energy surrounding a powerful transmitting tower was clearly confirmed.

The nickel tours of WIND and WYLL were most interesting, the equipment really cool to observe, and the true impact of dollar/talent investment required to build and maintain such a venture was very clearly understood. SARC members are most appreciative that W9PA was willing to let us see the business end of such substantial electrics. Broadcasters are very careful to select people who appreciate and understand how to care for this investment and must be careful to allow only those who understand the electronics behind the mystery known as Radio.

A chance to see the business-end (in the view of a Ham Operator that is) of a 5KW and 50KW Broadcast AM Radio Station doesn't present itself often. In my case, an uneventful meeting of a fellow Ham during a recent Hamfest lead to discussions about the hobby, what each of us did for a living when not playing with radio. As my fellow Ham perused my wares on the display tables and grassy areas around the truck and trailer, it was quickly determined that my potential customer was the Chief Engineer of WIND 560 and WYLL 1160, two powerful AM Broadcast stations in our area. Paul Easter, W9PA, and I had occasion to converse about our careers

and once he mentioned the heavy-duty stuff he got to play with, I compelled him to find a way for our club to gain access to eye-ball the equipment that made AM Radio work. Actually, he never bought a thing from my wonderful collection of goodies but it was much more rewarding to meet a person of such personable stature and technical knowledge; and lucky for me to find a very nice person whom was willing to have some strangers (if fellow Hams are strangers) come to visit his place of work. How cool to see antenna farms, transmit equipment, infrastructure, and to hear the stories Paul was able to relate as he showed us around?

WIND's current owner is Salem Media. The programming consists of syndicated conservative talkers Glen Beck, Michael Medved, Laura Ingraham, Dennis Prager, Hugh Hewitt, Mike Galligher, and more recently previous US House Representative, Joe Walsh.

Paul also manages WYLL, 50KW in Des Plaines. He hosted SARC members on private 'nickel-tours' of both transmit sites; worth more than a nickel, actually priceless indeed.

The real fun is to see the electrics needed to make a high-power AM broadcast system work. The equipment investment is substantial and the maintenance and operation of the infrastructure is non-trivial. Technical knowledge is a must to insure compliant emissions, 5-9's performance, and transmit signals of high integrity for the target area. Paul's capabilities and experience were clearly evident as he welcomed us into his world and we stood in awe as the various elements of the plant were revealed.

Access Approved

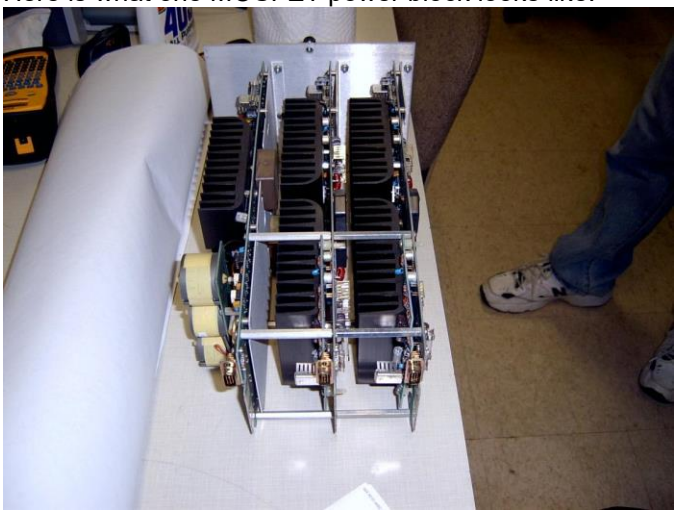
Bursting into the shack Clockwise from clock: our host Paul W9PA, Ted AB9SZ, Rob N9MVO, Ed NF9C (SK as of Fall 2013) front/center

In order for us to see the PA modules in the 5KW rig, Paul placed the main transmit section on standby, powered up the backup, and pulled one of the MOSFET Modules out for us to see the architecture; all the while Michael Savage was going nuts over the air as a studio speaker monitored the audio stream.

Paul Easter, Chief Engineer, explains the Harris DAX rack.

Programming from Elk Grove studios comes into the Xmit site through this equipment; there is also remote monitoring capabilities so that W9PA is able to ascertain the station's status remotely at any time.

Here is what one MOSFET power block looks like:



A classic 10KW Collins tube Xmitter stands nearby, available in the event the new solid state technology fails. W9PA opened the doors to the dormant machine to reveal what we all could only sigh…..what gigantic and artful components.

Modulation Transformer (yes, it's 5KW Audio)

Here is the backside of the Collins Xmitter showing the modulation transformer and power supply. 480 Volts 3 Phase supply makes for a quiet B+ those formidable Eimac's desire. Check out the oil filled filter capacitor over on the far right….surely wouldn't want to write the order to buy one of those in today's money.

WIND is licensed to transmit 5KW into the Chicago/Milwaukee market. The Xmit site is just across the state line in extreme Northwest Indiana (hence the IND back when states were abbreviated by three letters) just east of the Illinois state line and south of I-80. To insure the station's signal propagates to the target area there are four towers in phased-array several thousand feet to the west of the shack. As the programming day moves from dawn to sunlight and back again into darkness, the station's automated management controls the Phasing Cabinet to insert and decrement gigantic aircore inductors and their mated [beautiful glass and ceramic……..you had to be there to understand] HV capacitors into various configurations to beam the signal correctly, avoid back-scatter into other protected broadcast markets, and comply with the station's license conditions.

Don't Touch That Dial ! Ted Lester AB9SZ at the controls.

Ted Lester AB9SZ is standing in front of the WIND Phasing Cabinet. The status lamps are currently indicating night operation while Ted decides if he should '….touch that dial….' or not. NOT.

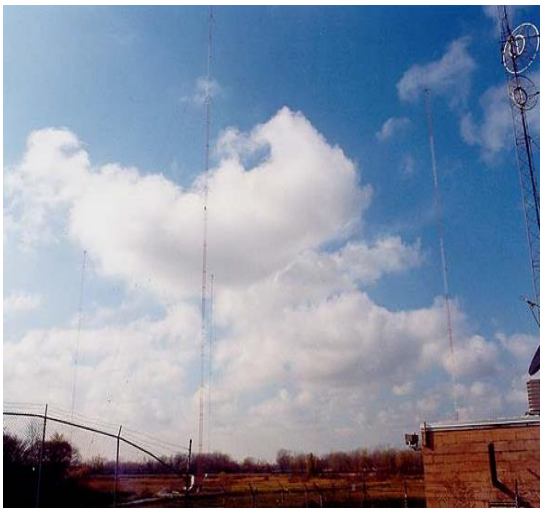
Ted, an experienced engineer, posed for this picture while very carefully spacing his fingers *away* from the dial. Paul Easter was across the room near the Power Amplifier rack and saw Ted's curiosity in front of the Phasing Cabinet and yelled ……. NO……! but it was too late; I had already snapped the shot. We quickly comforted Paul by letting him know Ted knew better and had only positioned his hand to simulate changing the settings. Some comic relief was in order so we all had a laugh once Paul knew that we hadn't ended his carrier as Chief Engineer. Actually touching the dial would be a no-no and this photo opportunity was one that Ted could not resist.

Phasing Cabinet

Around the back of this Phasing equipment, there are several Plexiglass windows to observe the various passive components and large copper knifeswitch sections attached to a long motor-operated timing mechanism. Because the area is considered RF HOT, we had to avoid remaining back there too long (don't want to cook our internal organs you know) but long enough to take a picture of one of the Aircore inductors doing its duty:

Giant Aircore Inductor inside the Phasing Cabinet

Through the magic of adding and subtracting the inductors and capacitors (giant L's and C's) in the design, the RF power flowing out to the four-element antenna farm is electrically adjusted to form a beam pattern desired for the time of day. WIND is omnidirectional during daylight and beamed north to Chicago/Milwaukee after sundown in order to avoid interfering with eastern markets assigned to the same 560KHz channel. This Phasing Cabinet handles the leading/lagging current phasing scheme to create a directional beam from the towers out in the field west of the transmitter shack.



Four Towers (Capacity Hats on Top)

Harris Transmit Rack on the Far Left with Companion Control

The antenna array consists of four, 490-foot guyed towers, each with a capacitance hat, and was built in 1975. A new Harris Transmitter backed by an older Rockwell Collins, equipped with 10KW finals, completes the business end of the power scheme.

Lightning Protection

Ever wonder about what happens when a commercial broadcast station takes a direct lightning hit? W9PA explained there are many levels of protection throughout the path from tower to Xmitter. If the stroke is powerful enough to break through several levels of protection and the stroke moves deeply into the equipment to knock-out one or more of the MOSFET modules, the remaining modules continue to carry their assigned power budget

while the controller sheds the faulty gain block. If a thunderstorm were to play havoc with the Xmitter, one might observe a 5KW signal dropping to a new, lower, level as a block falls out. Then if another stroke comes through, the transmitted power will decrement further as that newly injured block falls out. The Xmitter just continues to do its job, albeit at a lower radiated power level, until the scorched module(s) can be repaired. While listening to a commercial AM Radio Station during a thunderstorm, you may be able to hear the instant that site's antenna farm is about to experience a direct stroke: the protection equipment detects increasing static buildup, throttles the transmitter back, dumps the lightning stroke, and then reconnects the RF to the towers. This may sound like a short thump to the radio audience if the event clears quickly. The protector circuitry may also completely drop the carrier for a second or two at which time the radio audience will surely hear the lightning stroke because of the powerful carrier's absence. Thump or crackle; you'll know which event occurred if you're monitoring the transmitter when a thunderstorm happens to be over the transmit site.

Warren Shulz, Chief Engineer of WLS and also a friend of Paul Easter, joined us for the WIND XMIT Site tour.

Pictured here Warren (left) and Cliff K9QD (right):

Local and Regional Nets

In this new section of the RHG we'd like to build a list of HF, and VHF/UHF nets that might be of interest to our club members. Please send submissions to Leo N9NBH or Mike K9KQX

SARC	Technet	Tuesday's 7:30 CST	K9IIK	145.230mhz
SARC	Club Net	1st,2nd, 4th, Thursday 8pm	K9IIK	145.230mhz
TALARC Amer Legion		2nd Sat, 12 noon	14.275Mhz	
TALARC Amer Legion		3rd Sun 5pm	7.245Mhz	
TALARC Amer Legion		Wed	3.862 Mhz	
6M Net		Wed 7PM	50.130Mhz	
SUHFARS	Do nothing net	Sun 9:00PM	443.250 +5Mhz	114.8hz PL

SARC March Club Notes

Schaumburg Amateur Radio Club Business Meeting August 17, 2017

Matt Walsh AC9IG President called the meeting to order at 7:00 PM.

Attendees:

Gary Bernstein	N9VU	Kevin Willard	KB9QVX	Cliff Sowka	K9QD
Roger Ryan	W9RDR	Frank Giampa	N9QPD	Kent Ochs	W9KAO
Russ Schmidt	KC9NUV	Matt Walsh	AC9IG	Danny Kafka	KD9HIL
Ted Lester	AB9SZ	Chris Brewer	AC9GN	David Hug	KD9CVI
Robert Kocourek	W9RKK	Jon Mucker	N8XVI	Rick Cook	KC9PLO
Leo Ribordy	N9NBH	Ken Krzywicki	KD9HIJ	Jim Campbell	KB9RGU
Ray Baker	K9EYT	Burt Schultz	AB9CV	Mike Sorensen	K9KQX
Bob Zuttermeister	W9GEW	Steve Karson	AC9EM	Bob McIntyre	W9DXR
Bob Langsfield	WB9TZC	Rob Glowacki	N9MVO	Dennis C. Calvey	KD9HIK
DJ Traxler	WA9VBR				

Special Thanks: Becky Hopkins provided a wonderful Blueberry pastry tonight.

Treasurer's report: Chris Brewer AC9GN reports: Beginning balance for the month was $4,826.10. Income was $105.00. Expense was $253.85 for data-line, Field Day trailer rental, and annual PO Box fee. Ending balance is $4,677.25. Paid membership is currently 31 of previous year's (ending last month) 86-count.

President's Report: Matt AC9IG North American QSO party this coming weekend. Provide Name/State include ARRL membership. Schaumburg's Hyatt Regency is the DXCC convention site to be held during the third week of September (15/16). Saturday venue is hosted by Rick Roderick K9UR and Paula Uscian K9IR will also be presenting. Chicago Marathon in mid October on a Sunday. Always looking for Hams to assist.

SARC Repeaters: Kent W9KAO has received 70cm cans and the new antenna arrived. Expecting additional $200 will be needed for the final mechanical items to install at the Plum Grove tower during Labor Day weekend. Station Master 7dBi appears to be a better solution over the trusted J-Pole option.

Public Service: Rob N9MVO: Thanks to all who participated in support of the Schaumburg Park District Triathlon. All stations were manned on schedule and the event went well with only two minor incidents where we handled traffic between Hams and Park District officials. Fourth of July parade was successful; only a few incidents of bike riders needing mechanical help and otherwise a good event.

Secretary's Report: Cliff Sowka K9QD: Meeting Minutes approved as published in the RHG.

RHG: Mike Sorensen K9KQX asks for articles with topics from anything Radio related.

Construction Project: Gary N9VU reports September resumption during the last Saturday of the month. There are two Hamfests occurring in late September and those will likely conflict with CP attendance. Also discussed the need to clear our over-loaded storage cabinets in search of items that could be sold during these two final Hamfests. Will need to find some alternate time to visit the basement storage area to select items.

Social: Roger Ryan W9RDR. Club's [Relocating away from Pilot Pete's] Pizza Party will be 6PM October 14th Saturday night at ***Lou Malnati's*** in Schaumburg (Roselle/Schaumburg Road).

Education: Leo N9NBH reported his plans for a fall TECHNICIAN Class are underway with Debbie Wolf of the library staff with a TECH class starting Oct 14th. Library facility on Hassle Road in Hoffman Estates is part of the Schaumburg Library and will be the site used; there is no charge for classroom and there is also no charge for students. Burt Shultz AB9CV is available to join Leo's Instructor staff.

VE Testing: Steve Karson AC9EM reports VE Test Results:

NEXT EXAM: Sept.2nd at Schaumburg Park District CRC; .

Results for Aug 5th 2017 session:

CLASS	NUMBER TESTED	NEW LICENSE or UPGRADE
Technician	1	1
General	2	2
Extra	3	0
Total:	6	3

NEW LICENSES:
George S Frahm KD9JBS
Priscilla A Miller KD9ICS
Nancy L Migaua KD9EHW

Steve Karson, AC9EM

EMCOMM: Bob Langsfeld WB9TZC reports SARC will be participating in Schaumburg Public Safety Open House Sep 30th. Need a few club members to help staff the booth (9AM to about 2PM). Our support of St. Alexius Hospital's marathon event on Central Road went well.
Programs: Cliff Sowka K9QD: Mike Clodfelter AC9CG will present Software Defined Radio during the September meeting.

Nets: 24 check-ins.

Ebay Sales: Gary N9VU. There are no items currently listed for sale. We're really in need of cleansing the storage cabinets and finding eligible items for eBay listing.

Old Business: Need for additional funding through eBay sales; targeting expenses for Duplexer.

New Business: Matt suggested we set-up a committee to recommend standardized radios for the club's Field Day events. Study features, costs, ease of use, advantages, and report their findings to the club for consideration. Matt moved a committee determine feasibility of obtaining matching HF radios. Chris seconded. So moved. Kenwood 570s? Tabled until spring.

Nominating Committee: Roger has opened this year's committee effort with five club members available to begin Officer/Board seat candidates: Current committee members are Ted AB9SZ, Russ KC9NUV, Cliff K9QD, Roger W9RDR, Mel W9FRT.

Offered tonight is VX7R from SK for sale: Kent W9KAO is facilitating the sale for his widow $230. Capable of 6M, 220, 2M, and 440. Also waterproof. Pre-programmed for local repeaters.

ByLaws: Any proposed changes need to be published in September RHG.

Adjourn 8:02PM.

Submitted: Aug 18, 2017 Cliff Sowka K9QD Secretary.

A Call for Programs

Some Potential Topics: RF Transmission Fundamentals. ARRL Awards. ARRL Contests. Semiconductor Developments. Operating Tips. QSL Card Process. Managing Pileups. Public Service Emergency Communications. Village of Schaumburg Volunteers. Field Day Planning. Basic Electronics. Inductive / Capacitive Reactance Biasing. Transistors. uController Projects. SDR / Dongle Radio Tricks. Grid Locators. Frequency Charts. Antenna Basics / Installation Advanced Antenna Tricks. Measuring Antenna Impedance. Lightning Protection. Shack Electrical Facilities. Solar Cycle Considerations.

Ideas for presentations are endless. Our membership has talented and experienced people who are asked to contribute to interesting business meetings by bringing some of their knowledge forward for all to benefit. Please let me know if you wish to present a topic and I will include your ideas into the schedule. Then our diverse membership will provide enthusiastic participation for a rewarding outcome. Cliff Sowka K9QD Program Chair

SARC Board of Directors Meeting

Schaumburg Amateur Radio Club Board of Director's Meeting Aug 2, 2017

Kent Ochs W9KAO Chairman called the meeting to order at 7:04 PM.

Attendees:

Kevin Willard	KB9QVX	Cliff Sowka	K9QD	Roger Ryan	W9RDR
Frank Giampa	N9QPD	Kent Ochs	W9KAO	Russ Schmidt	KC9NUV
Mel Luxenberg	W9FRT	Gary Bernstein	N9VU		
Ted Lester	AB9SZ	Chris Brewer			

Treasurer's report: Chris Brewer AC9GN reported: Beginning balance for the month was $4,826.10. Income was $105.00. Expense was $253.85 for data-line, Field Day trailer rental, and annual PO Box fee. Ending balance is $4,66.25. Paid membership is currently 31 of previous year's (last month) 86-count.

President's Report: Matt AC9IG Present but nothing to report.

SARC Repeaters: Kent W9KAO has received 70cm cans and will begin final negotiations for the vertical needed at the Plum Grove tower. Station Master 7dBi appears to be a better solution over the trusted J-Pole option.

Public Service: Rob N9MVO: Thanks to all who participated in support of the Schaumburg Park District Triathlon. All stations were manned on schedule and the event went well with only two minor incidents where we handled traffic between Hams and Park District officials.

Secretary's Report: Cliff Sowka K9QD: Meeting Minutes approved as published in the RHG.

RHG: Mike Sorensen K9KQX asks for articles with topics from anything Ham Radio related.

Construction Project: Gary N9VU suggests he may send an announcement to SARC_ALL looking for suggestions this coming fall resumption.

Social: Roger Ryan W9RDR. A club-hosted Sushi Party will be October 14th Saturday night at the new Shakou Restaurant across the street from the Catlow Theater in downtown Barrington.

Education: Leo N9NBH not present but reported his plans for a fall TECHNICIAN Class are underway with the Library staff (Debbie Wolf) with a TECH class starting Oct 14th.

He will begin soliciting volunteer instructors and believes about 5 will suffice. Burt Shultz AB9CV is available to join our Instructor staffing.

VE Testing: Steve Karsen AC9EM Not present.

EMCOMM: Bob Langsfeld WB9TZC Not Present. Previously reported he has received enough commitments to staff St. Alexius Hospital marathon event on Central Road this coming Saturday. We are pleased to assist with their event and we're reminded the hospital supports our 440 Fusion Machine on top of their building with such valuable Antenna Mounting real estate as well as no-cost 24-hour Uninterruptable Power for our installed equipment.

Programs: Cliff Sowka K9QD: Planning a presentation on Crystals for the August meeting.

Nets: 24 check-ins.

Ebay Sales: Gary N9VU. There are no items currently listed for sale. We're really in need of cleansing the storage cabinets and finding eligible items for eBay listing.

Old Business: Need for additional funding through eBay sales; targeting expenses for Duplexer.

New Business: Matt suggested we set-up a committee to recommend standardized radios for the club's Field Day events. Study features, costs, ease of use, advantages, and report their findings to the club for consideration. Matt moved a committee determine feasibility of obtaining matching HF radios. Chris seconded. So moved.

Chris received a QSL card from Spain acknowledging one of our SARC-In-Park. Someone needs to respond and Matt offered to handle the effort.

Next club meeting: officer needs to publicize the bylaw timetable in time for fall elections.

Nominating Committee: needs to form soon.

RHG articles seem to be sparse so Kent suggests we charge all officers with the duty of supporting articles.

Adjourn 8:39PM.

Submitted: Aug 3, 2017 Cliff Sowka K9QD Secretary.