

HamGab

Next meeting: April 7th

April 2017

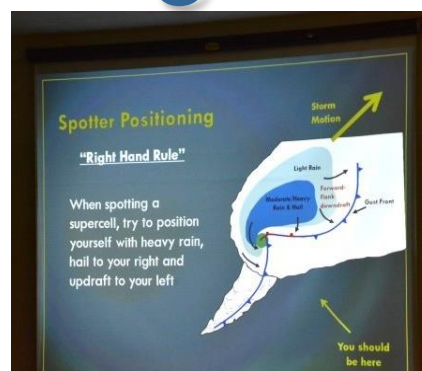


NOTE: the April program will start

at 7pm. Hope you enjoyed last month's

White Elephant Sale. We couldn't make it but heard there was a big crowd. Thanks again to all of the Hamfesters that helped out.

Weather Spotting Class



Dave N9KPD will be giving his annual basic Weather Spotting Class at our April meeting. It is in conjunction with the Romeoville National Weather Service. Preregistration is not required, but is strongly encouraged. Here is the link for preregistration: <http://weather.cod.edu/spottertraining/hamfesters.html> The link can also be accessed on the website right below the pictures. Don and Nora could use some help with setup around 5:30pm and **the program will start at 7pm**. This program is always one of the highlights of the Hamfesters' year and you could even win a weather radio! Questions can be directed to n9kpd@arrl.net

We need your info!

We will be updating our
Emergency Information Contact
Book. See Nora's column below



**DON'T FORGET YOUR SPLIT THE POT TICKETS AT
THE NEXT MEETING!**

PO Box 474

Crestwood, IL

60445-0474

www.hamfesters.org

Special Interest Articles

Phase Noise pg. 4

Tesla pg. 5

April Birthdays

Thomas KA9BVQ

Rita KC9CDL

Dave W0COP

Mike W9GYC

Norm N9IRO

Patrick KB9KRT

Eric KC9OOM

Bruce KB9USV

George N9VOK

Ben KC9WOS

Alex KC9WOT

Jake KC9WOX

Officers

President-Nora KC9MLV

Vice President -Jim KB9CYL

Secretary-Patty KC9LYE

Treasurer- ED WA9EOL

SGT at Arm-Dave W0COP

Trustee-Granville W9PNG

Board Members

Don KC9EQQ

Steve W9KXT

Kurt WB9FMC

Cindy N9CAS

Cathy KC9NRH

Brian W9HLQ

Hamgab Editors

Steve & Eric

KC9OOL & KC9OOM

Scapstone@aol.com

WELCOME SPRING!

THE PRESIDENTS BEAT

NORA POINTER KC9MLV

APRIL 2017

Hello everyone. Thanks to everyone who came out to the White Elephant Event. We had over 60 people in attendance and it was good to see them.

Health and Welfare: For those that were there at the end of the meeting, Cindy N9CAS got ill and was taken to the hospital. Just to let everyone know, she was fine and went home that same evening. She sure gave us a scare. Stan, W9KME, had a recent hospital stay and is back home recuperating. Our best wishes go out to both of them and other Hamfesters who may not be feeling well.

April Program: Are you prepared for the upcoming Spring with all of its fickle weather in the way of storms, and rains and floods oh my?? If not, please join us Friday, April 7th, 2017, for our annual Basic Weather Spotters Class/Program. This is our fifth year for fellow member Dave Bukowski's presentation of this worthwhile event for the public, Ham operators and First Responders alike to refresh skills necessary to keep an eye on the sky for severe weather. Keep a look out on the website for registration for this class. So make it a date to be there and learn some great things presented in an informative and fun manner! That night we will start around 7pm and due to the amount of info to be had, please expect this to conclude between 10pm and 10:30pm. We will also be raffling off several weather radios. Thanks to Gregg AB9MZ for his donation of two weather radios for the raffle. **Please note: I need your help at 5:30pm that night for chair and table set-ups. The more of you helping, the faster we can start the meeting on time. Thank you in advance for your help.**

New Members: Welcome to Joshua Novak, KD9IAC and Greg Verthein, KD9HOK. Glad to have you aboard.

May Program: This looks like the program you don't want to miss. The subject will be on Digital Mobile Radio. Hamfesters will be bringing in a guest speaker, Tony Tolbert, W9AMT, from Indianapolis to give us the details of what this new open technology mode is all about. Thanks to Brian, W9HLQ and to Dave W0COP for arranging Tony to come and speak to our group. So spread the word to your friends.

Benefit: Calling all our bowler members. A close friend of Don and mine recently passed away, leaving her son, Michael 17, with no family and no funds. There will be a fundraiser for him on April 15, 2017, at Arena Bowl for a price of \$15.00 includes the shoes. Looks to be a fun evening. Please contact Don KC9EQQ for more info. By the way, Michael's Dad was a Ham for many years too. Call Don at: 773-426-1936.

Emergency Contact info book update: Speaking of Cindy as we were earlier in my column, we never know when someone may become ill at any of our given events. A few years ago, Don introduced the Hamfesters Emergency Contact info book.



This book has information sheets which are filled out by you our fellow members and has such things on that sheet, like who to contact in an emergency, special immediate need medications and things like allergies, and other medical concerns that we might need to know to help Paramedics better assist one of our own should they become ill at a meeting. This book is only handled by Officers and board members of Hamfesters and is a volunteer sign up. Your information given us in these sheets is purely for revelation to emergency personnel. At the April program, Don will make an announcement to you all to see who either needs to update their sheet or create a brand new one. We strongly encourage your participation as we know it can be a lifesaver.

Volunteers Needed: The Evergreen Park Lions Club is once again having their 5K race on April 30, 2017, and are looking for ham radio volunteers for staging along the route. I understand they had about nine ham radio operators last year helping out.

As always, we ask you to keep an eye on the website for the most current happenings in our club. On behalf of myself and the Officers and Board members of Hamfesters, thank you for all you do for Hamfesters.

73,

Nora Pointer KC9MLV

President of Hamfesters Amateur Radio Club of Crestwood

P.S: If you need to reach me, please email me at: npointer92@gmail.com

Questions, comments etc., for Nora? Please email her at: npointer92@gmail.com

General Meeting Minutes de Patti, KC9LYE

Hamfesters amateur club meeting March 3, 2017 meeting began at 1930 p.m.

There was no February 21 board meeting because of thunderstorms.

The March 3, club minutes were written by Jim Riley W9JPR.

Moment of silence: for tornado victims.

Visitors: all stood one, sign log.

Program: tonight white elephant sale, April WX spot, Dave spoke about the ABT WX class. April MTG at 1900. May W9HLQ DMR.

Minutes: minutes approved by KC9EQQ, seconded by AB9MZ.

Dispense with general business meeting. Motion approved by W0COP, seconded by KC9OOO.

Bob N9KWG, spoke about the badger trip September 23 and 24th 2017.

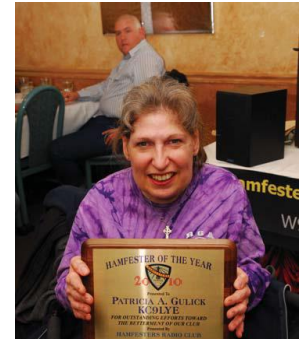
N9KPD, talked about hamfest tickets.

AB9MZ, displayed radio vast.

New members: Greg KD9HOK, and Josh KD9IAC

Adjournment: KC9EQQ, seconded WB9FMC.

Split the pot: MEL



Hamfesters Roster News

New members:

Joshua Novak, KD9IAC

Josh lives in Worth and is a corrections officer in Chicago. He is with the Civil Air Patrol and likes to fool with electronics.

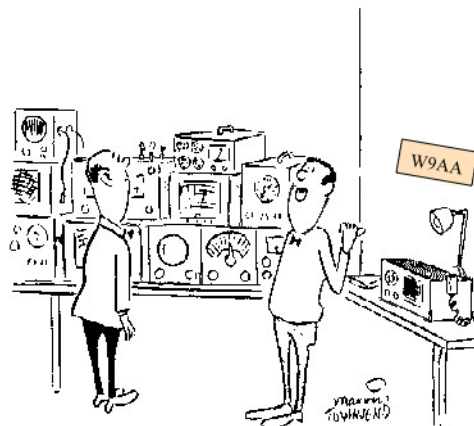
He is an ARRL member.

Greg Verthien KD9HOK

Greg lives in Palos Heights and is a general class ham. He likes R/C airplanes and Go Kart racing. He spends his radio time on two meters and 440 FM. Greg works as a union carpenter.



"Three years ago I refinished it and made it look new... now I'm making it look old again."



"That is my test gear. My ham rig is over here".

CQ Field Day 2017 de Jim Riley W9JPR

Last month I told you the Village of Worth and the Worth Park District are in negotiations on who will hold the lease on the Field Day site. There is nothing new to report. We're booked no matter what happens.

According to the ARRL website, there are "no substantive rule changes" for Field Day 2017. I have scrutinized said rules and find the League to be correct in their assessment.

The big news for this month concerns the GOTA call. It was a choice between Jimmy Liston N9HSH and Bob Koran N9JYX, both big-time FD participants who became silent keys since last year's event. Bob's call got the nod because he was an Extra. Jimmy was a General. It's time for all you GOTA operators to practice saying November Niner Juliet Yankee X-ray. I'd like to make an appropriate memorial for Jimmy. Any ideas would be appreciated.

This is your last call for pictures. If you have any shots of last year's Field Day, get them to me on a disc if you'd like them to be included in this year's FD presentation.

NEW MEMBERS TAKE NOTE: Field Day is our biggest operating event of the year and it's your chance to make your first HF contact. Your license class doesn't matter. You'll be under the direction of our friendly and non-judgemental GOTA staff. They will help you every step of the way.

Field Day runs from 1800Z Saturday June 24 to 1800Z Sunday June 25. That's 1300 hours local time for those who are Zulu time challenged. Setup begins at 0800 Saturday morning. The club will provide lunch and dinner on Saturday and Ed WA9EOL will cook a delicious and abundant breakfast on site Sunday morning. The place is Altman Park in Worth, a quarter mile west of Harlem Ave. on 115th St.

Mastering Phase Noise Measurements

Phase noise is unintentional phase modulation on a signal that spreads the spectrum and degrades performance in many RF applications. Whether you are new to phase noise or have been measuring phase noise for years it is important to get a good understanding of the basics and to learn of new measurement techniques to improve your radio operations and circuit designs.

This series of application notes is broken up into three parts:

[Part 1:](#) Understanding the basics of phase noise: why it is important, how does it impact different applications, and what causes phase noise.

[Part 2:](#) What are the different measurement techniques and their advantages/disadvantages: direct spectrum analyzer, phase detector, delay line discriminator and we introduce our new digital phase demodulator technique.

[Part 3:](#) How best to perform advanced measurements: additive phase noise, pulsed phase noise, and AM Noise We will first cover part 1: Understanding the basics of phase noise.

The links to the PDF's can be found on the website under the visuals for Hamfesters' presentation.

Courtesy of Gregg AB9MZ



Nikola Tesla

Tesla is best known (by those who know of him at all) as the genius who conceived, invented, designed and put into operation our alternating current electrical system. without which much of the Electrical Age would never have come into being. That invention of a series of inventions freed the world from dependence on direct current, which limited the distance that power could be transmitted to a mile or two from the generating station. Alternating currents could be transferred rather long distances.



Nikola Tesla was born in 1856 of parents of educated aristocracy. His father was a priest and his mother was from a prominent Serbian family. He had two older sisters and a brother who all lived in Gospic, Croatia. Nikola's brother, Dane, was close to Nikola. One day the friendly family horse threw Dane and he died of his injuries. This death affected Nikola greatly and perhaps caused the somewhat distant personality that negatively affected Tesla through out his life. He never married.

Tesla enrolled in the Polytechnic School in Graz, 80 miles south of Vienna. He excelled in his studies of the sciences and mathematics. Tesla could speak nine languages. During his sophomore year in college a Gramme Dynamo was delivered from Paris to the school. Tesla noted the heavy arcing and sparking of the commutator when heavy electrical loads were involved. He knew intuitively the commutator could be eliminated. Instead he developed the idea of rotating electrical fields. This is the basis of all AC electric motors and generators today. Tesla patented his ideas and eventually

George Westinghouse collaborated to install the very successful Niagara Falls power station.

Others know him as a dreamer who proposed such grandiose schemes as exciting the earth at its fundamental frequency and thus transmitting information—or even power—to any part of the globe with little loss.

Yet he was also the practical engineer who designed the complex Niagara Falls project, for many years the **world's** largest generating plant.

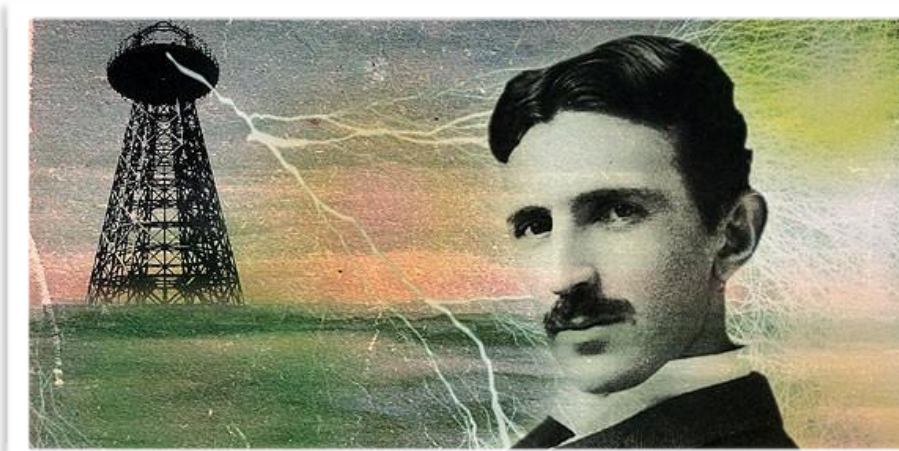
It is interesting that the AC frequency initially was 133 cycles per second. Indeed, over 120 power stations were built across the country running this frequency. It was found that for compatibility with existing DC power circuits, that 60 cycles was easier to convert to DC power. This we have 60 cycle power today.

As for grandiose projects. his Tesla generator in 1899 of more than 12 million volts at his Colorado Springs laboratory was unmatched for more than 70 years. Experimenting with wireless power transmission, he lighted a bank of 200 lamps (using about 10 kilowatts) 26 miles from the Colorado Springs installation. That feat has yet to be duplicated.

These fantastic accomplishments have overshadowed his very real work in the radio **field**. Yet he was one of the **first** to work with high frequencies. and many engineers know him only by that **first** radio-frequency transformer, the Tesla coil. That "**coil**" was invented in 1891. In 1893, speaking to the members of the Franklin Institute in Philadelphia, he discussed electrical resonance. among other subjects.

Pointing out that if the inductive and capacitive reactance in the circuit were such as to cancel each other. resonance would be attained and current would increase without a theoretical limit. He explained

that it was fortunate that pure resonance could not be produced {because of resistance in the circuit}. Otherwise. he said. there would be no telling "what dangers might lie in wait for the innocent experimenter.



Concerning resonance. he said few words on a subject "that concerned the welfare of all. I mean." said Tesla, "the transmission of intelligible signals and perhaps even power to any distance without the use of wires. I am becoming daily more convinced of the practicability of the scheme." Admitting that most **scientific** men had doubts, he said "**My** conviction has grown so strong that I no longer look on this plan of energy or intelligence

transmission as a mere theoretical possibility, but as a serious problem in electrical engineering which must be carried out some **day**."

Tesla continued to work with resonance. and his patent 568,178 of September 22. 1896 shows several ways of obtaining resonance in a high-frequency circuit. In 1915 he sued Marconi for infringement of that patent. but lost the case. The court just could not understand the principles involved. and was possibly **influenced** by Marconi's reputation as a great man in communications. The Marconi patent was, however, declared invalid in 1943 on the basis of prior work by Tesla and the 1896 patent. as well as later patents by John Stone Stone and Oliver Lodge.

In 1899 Tesla staged a demonstration of radio remote control in Madison Square Garden. New York City. He maneuvered a three-foot-long model boat in a large tank. Starting, stopping, reversing and steering it in response to requests from members of the audience.

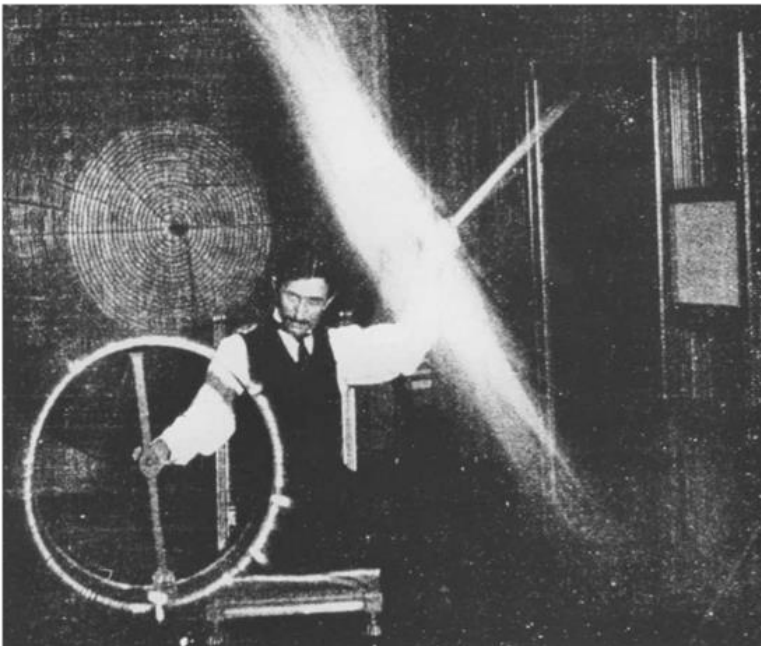
The Madison Square Garden transmissions were spark. But in his studies of high frequency. Tesla pioneered two other types of transmitters that later became commercial successes in other hands. He made the **first** high-frequency alternators. machines like ordinary alternating current generators. but designed to produce electricity at much higher frequencies. Tesla's alternators reached 10 kilohertz. Improved by Fessenden and Alexanderson. **first** to 50 and later to 100 kilohertz. These alternators

were made by General Electric and became the standard high-power transmitter: for transatlantic and other long-distance communication, until displaced by tube transmitters.

Tesla also pioneered in the use of the electric arc as a high-frequency generator, describing one with controlled atmosphere and magnetic blowout in 1893. Re—invented by Valdemar Poulsen in 1903, and introduced into the United States by Cyril F. Elwell, it became very popular, especially for medium and low-power transmitters and ship sets. (De Forest used the Tesla arc in his phone transmitters, because he could do so without infringing on the patents that were held by Poulsen.)

In 1901 Tesla started the construction of an eight-sided wooden tower on Long Island. Surmounted by a copper-covered hemisphere 100 feet in diameter, it rose 200 feet in the air. An air of mystery surrounded the tower and its purpose, but in 1904 Tesla issued a brochure in which he described the project as a World Wide Wireless System, which he said would provide telegraph and telephone communication, news broadcasting, stock market quotations, aids to navigation, entertainment and music broadcasting, accurate time service, facsimile and teleprinter services—in fact the whole gamut of radio services that was to come into existence decades later.

Nikola Tesla was a poor business man and negotiated away many of his patents in order to finance his next project or invention. He was always broke, but travelled with the top movers and shakers of the early 20th century. An impressive list would include J. Pierpont Morgan; Thomas Edison; Hiram Maxim; George Westinghouse; John Jacob Astor; Samuel Clemmons; James Clerk Maxwell; Charles Steinmetz; Oliver Heaviside; Sir William Crookes; Sir John Fleming; Theodore Roosevelt; Rudyard Kipling; John Muir among others.



With the withdrawal of support by Tesla's **financial** backer—it is said because he found that Tesla was more interested in the new project as a transmitter of wireless power than wireless communications it became impossible to complete the work. The tower was **finally** taken over by the Waldorf-Astoria in payment for his hotel bill, and torn down for scrap in 1917. This ended Tesla's radio work, and (though he continued to invent in other **fields**, such as steam turbines and even autotransmissions) marked the end of his career as an important scientist and engineer. He died in semi-poverty in 1943.

Hamfesters VE Testing de Al Bukowski N9ZD VE Coordinator

Hamfesters VE Testing Report for HamGab April 2017

Hamfester's Radio Club VE's team assembled on the morning of March 11, 2017 at Oak Forest City Hall to administer Amateur Radio exams. We had one candidate who passed all three Exams. Congratulations to the new Extra. And to all the VE's who assist me at these exam sessions. Thank You!

Information to Read before attending any Amateur Radio VE Test Session

Hamfester's Amateur Radio Club VE's offer License Testing for those who want to get their first ham license, or those who want to upgrade to a higher class license. Examination sessions are available on the second Saturday of each month. We will assist you with completion of all necessary paperwork prior taking your exam. You may bring your Calculator if you choose, however the volunteer examiners must check it prior the exam that all memories are clear. For the Technician Exam there are 35 multiple choice questions. If you are successful passing the Technician exam, you may take the General Class Exam which also has 35 multiple choice questions. If you are successful passing the General exam, you may take the Extra Class Exam which has 50 multiple choice questions. Please make sure you are studying the latest question pool that can be found on the internet, through ARRL publications or Gordon West books. If you fail any exam, it will be up to the discretion of the examiners to retake a different version of that element for an additional \$15.00 dollar fee.

Requirements:

A fee of \$15 dollars is charged for the examination. Payment is Cash ONLY -- no credit cards or checks. Also, Please bring a government-issued ID; (one ID could be a driver's license). For Technician candidates. If you would prefer not use your Social Security Number on your application, we suggest obtaining a Federal Registration Number (FRN) from the FCC website - otherwise please bring your Social Security Number. SSN or the FRN number is a requirement on the FCC form. Licensed amateurs upgrading will always use the FRN number printed on their amateur license in place of the SSN.

Upgrade Examinations:

Important: If you are already licensed and are taking an upgrade examination: Please bring your printed *and signed Current Amateur Radio License*, and a copy of your current license that we can send with your paperwork. Also, If you have recently taken an examination that has not been processed by the FCC, Please bring your *latest CSCE* and a *Copy of the CSCE* that we can send with your paperwork.

Are You a New Licensee or an Upgrade?

Candidates, Congratulations on passing your Exam(s). It may take the FCC 5 to 10 business days (average 6 days) before your new or upgraded Amateur License is posted on the FCC website. Please check often the FCC Website for your license info. <http://wireless.fcc.gov/uls/index.htm?job=home>

FCC 'Paperless' Amateur Radio License Policy Now In Effect:

How to Print your Official FCC License:

Download and Print License: The licensee can log into the FCC ULS License Manager System <http://wireless.fcc.gov/uls/>. Read the instructions to 'Download the Electronic Authorization' to print your official license. On the 'Download Authorizations' page the license holder will add their call sign to the 'Authorizations to Download' and then click download. A PDF of the license can be saved to your computer and/or printed immediately on any paper stock you desire.

Location's and Time of the next Hamfesters VE administered Radio Exams:

The next exam session will be held on April 8, 2017 at the Oak Forest City Hall 15440 S. Central Ave. Oak Forest, IL 60452. Please arrive by 9:00 AM. We begin testing promptly at 9:15 AM. Enter through the marked Police door entrance and look for the ARRL Amateur Radio testing exam signs for directions.

If you have any other questions regarding our test sessions or wish to pre-register, please contact N9ZD via e-mail at:

N9ZD@arrl.net. Last minute Walk-ins are welcome.

73's de AL - N9ZD



March Meeting Pictures courtesy of Don KC9EQQ





Hamfesters Monthly Raffle

We try to do the best we can for prizes for the monthly Hamfest meetings. We however have a limited budget we can work from. We would encourage all members to contribute an item for the monthly raffle. It might be something that would be useful to others, but is no longer of use to you. It could also simply be something you just choose to donate. We try to get as broad a variety of prizes as we can. With your donations we can have even more variety and nicer prizes for our monthly raffles. If you can help we would greatly appreciate it.

Your prize doesn't have to be electronic in nature; it can be any- thing even if it doesn't deal with ham radio. Thank you in advance for your thoughtful consideration of making a prize donation and hope to hear from you very soon.

Feel free to contact me by email at

kb9yxh@yahoo.com or call me at (708)234-0280.

73' Bob Richter K9RDR Raffle Chairman





Hamfesters Amateur Radio Club

PO Box 474

Crestwood, IL 60445-0474

www.Hamfesters.org

Hamfesters Radio Club



Meetings and VE Testing

Club meetings are held on the first Friday of every month at the Crestwood Civic Center, 14025 Kostner Ave. in Crestwood, IL.

Meetings begin at 7:30 PM. September meetings may vary if our meeting date conflicts with the Crestwood Flower show.

Board Meetings: 7:30 PM on the 4th Monday of each month at the Crestwood Civic Center

VE TESTING: Every 2nd Saturday of the Month at the Oak Forest City Hall, 15440 S. Central Ave. Testing begins at 9:00 AM but we ask that you arrive 10 minutes early. Exam fee is now \$15.00. Al N9ZD VE Team Chairman

Special Activities

Hamfesters Big Peotone Hamfest: Our 81st annual Hamfest coming August 6th, 2017-Will County Fairgrounds, Peotone, IL. Kurt WB9FMC Hamfest Chairman.

Field Day: Join the W9AA crew for one of the best Field Days ever on June 24 & June 25 2017 at 115th and Oketo Avenue, Worth, IL.

Jim KB9CYL Field Day Chairman

WAHM: Worked all Hamfester Members-work 10 Current members for a beautiful award certificate. Matt KC9JXC Awards

Nets/Contact Info

10 METER NET: Every Sunday Evening at 8:00 PM on 28.410. Jim N9HSH is Net Control

2 METER NET: Every Monday Evening at 9:00 PM on 146.640. Tom KA9ZXN is Net Control

W9AA Mailbox:145.650 24 hours a day.
Bruno K9QKB is Sysop. ILOAK:Node on 145.650

WEB SITE: www.hamfesters.org Webmaster Granville, W9PNG & Brian, W9HLQ

Club's address:

Hamfesters Radio Club

P.O. Box 474 Crestwood, IL 60445

Patti KC9LYE Secretary

Deadline for Submitting to the Hamgab is the fifteenth of the month.