

The Wobbly Oscillator Cuyahoga Amateur Radio Society

NO8A Special Event Call

K8ZFR Cleveland Area Repeaters 146.82 - 443.825 - 444.75



MARCH 2005

Volume XXXV

Issue III

FROM THE PREZ

I would like to thank both Jon McKenzie KB9FEM - Assistant Cuyahoga County ARES EC, and Mike DiTurno KC8OWL - Cuyahoga County ARES EC for the fine presentation they gave on ARES in activities in Cuyahoga County at our February 16 meeting.

The 50/50 raffle was won by Aaron Clark KC8INE. This is the first time he has won since he has been a member. Congratulations Aaron. Aaron and CARS each received \$23.00.



Bill KC8YSV with Dave KD8V and several students working on lesson 1

We have 17 students signed up for the Copley-Fairlawn Middle School Ham Radio Club. The student have started License classes and have been getting some operating time on HF. The students are doing great and we have several projects planned including a combined project with the bottle rocket club to launch a TV camera in a rocket and build an AM radio with a wet cell battery to power it.

Do not forget to sign up for the Dayton bus trip ASAP. We have received several reservations already! We hope to fill the bus this year. The info is on our web site at www.cars.org.

Our own Dave K8KAV will give a talk on how he developed the CD's used for our Technician,



CARS 2005 Technician class

General and Extra classes. He will entertain questions and suggestions after the talk.

Our 2005 Technician class ended Tuesday February 22 with 6 students in attendance and all passed with flying colors! One student had a meeting she could not miss but will take the test at our March 13 VE session and I am sure will also pass.

That's it for another WO. This month we have some words about humbleness; *The only fool bigger than the person who knows it all, is the person who argues with him.*

See you at the March 16 2005 CARS meeting. de Bob, W8GC.

MEETING MINUTES

February 16, 2005

President Bob Check, W8GC called the meeting to order at 7:30 PM. The meeting was held at the Busch Funeral Chapel Community Room in Parma, OH. Introductions were held around the room.

A motion to accept the minutes of the January 19, 2005 meeting was made by Bill, KC8YSV and seconded by Bill, WA8GEO. A vote was taken and the motion passed.

The treasurers report was made by Tina W8HBI and she advised that notices are going out to people who still owe for 2005 dues. A motion to accept the treasurer's report was made by Terry, KB8DTC and seconded by Bill, KC8YSV. A vote was taken and the motion passed.

Bill, KC8YSV informed the group that if anyone knows of any possible new hams or potential members for CARS, to please let him know. Letters are being sent out to attract possible new members. If anyone needs to renew or would like to begin a new membership with the ARRL please see Tina, W8HBI. Our club can make a few dollars on each renewal or new sign up.

Bill also advised the members about the status of the Copley School Station. 17 kids have signed up and classes have begun to help them in getting their license. Things are going really great.

Dave, KD8V the Sunshine Chairman advised he sent a card to Gary, KC2BUA and one to Marc Rubin, KB8QHJ in December.

Bob, W8GC announced that the technician class students would be taking their VE Tests at the next weeks class. All seven seem to have a great understanding of the material. General and Extra classes will follow.

Toby, WT8O reported that Wednesday night nets have been picking up a little but more participation is needed from members. Also still looking for a net controller to help in rotation. Toby also encouraged people to fill out their VP response paperwork and return at a meeting or via mail. If you haven't participated and would like to, please let Toby know.

Terry, KB8DTC reminded us to visit the CARS Website to get our reservations for the Dayton Bus. Cost is \$35.00 and the bus can hold up to 42 people.

Dave, K8DAV reported that the repeater went back

to 60 seconds again. Six software errors were found so hopefully that won't happen again. Also the discussion group on the website isn't getting very much activity - please drop in and check out the website and discussion group.

Tom, WB8N reported on the WO. Keep the articles coming in and support the club.

Tom announced he worked several school club stations during the School Radio Club Roundup going on this week.. Tom sent out some QSL cards and responding school station cards will be displayed at Copley Middle School.

Gary, NI8Z reminded everyone a VE Session is scheduled for March 13, 2005. Gary NI8Z also informed the group about his experience while doing a presentation at a Kiwanis Club Meeting on 2-14-05. He also presented an idea about paying \$1.00 to give your happy thought of the day - a process he saw at the Kiwanis Club Meeting.

Bob, W8GC announced that Gary NI8Z would be representing CARS at the ARRL Convention on March 19th in Toledo.

George K8KR reported that he was happy with comments from club members about their contesting experiences. Jim N8GXR talked about two recent contests he was part of..

Bob reminded all in attendance that tonight Mike DiTurno, KC8OWL, The Cuyahoga County ARES EC and his assistant, John McKenzie KB9FEM, were our speakers tonight.

The 50/50 raffle was won by Aaron, KC8INE. His share was \$23.00

A motion to adjourn the meeting was made by Terry, KB8DTC and seconded by Mike, K8EHP. A vote was taken and the motion passed. W8GC adjourned the meeting at 8:11 p.m.

Submitted by Tina Check W8HBI

***Remember to check in on the CARS net on
Wednesday at 9:00 P.M.***

V P 'S INTERVIEW

This month's interview is with George, KA8JHS. George responded in a very different and interesting format.

This document is based on "guestimates", near history, and "flashbacks".

George KA8JHS

Not counting the time my buddy and I, as teenagers, experimented with a crystal and "Cat's Whiskers" detector..... I rather got into the radio business suddenly.

I attended Wilbur Wright High School, a trade school in Detroit Michigan. I was studying tool and die making. During the World War II era, when military manpower requirements went up, any or all high school seniors were being drafted on their 18th birthday. My last year of high school ran 12 months, from July 1942 through July 1943. We were co-ops; school 2 weeks, work 2 weeks. I worked for a small tool and die shop. This scenario was considered "working towards the war effort". Therefore, most of our seniors were granted 6 months deferments, allowing us to complete high school. I was one of them.

After being inducted into the army, processed and completing basic training, I found myself in an Army Air Force Radio Operator and Mechanics School in Sioux Falls, South Dakota. It was about a 22 week course, covering AC-DC theory, electrical principles, circuits, radio wave propagation, etc. It all resembled what we see in ARRL radio books today. Also, level 1, hands on trouble shooting of transmitters and receivers that we would be using. To be specific, UH, VHF, UHF equipment. They were all vacuum tubes, no solid state devices; those were just up and coming. The operator class was all about code, CW, blinkers and procedures, translating messages into code and sending them out in 5 character groups.

The graduating requirements were satisfactory completion (passing grade) in radio mechanics, and operating procedure with the ability to receive code at 18 wpm. send at 16 wpm, and blinkers at 5 wpm. I did okay on all of the qualifications except receiving code at 18 wpm (tough V.E.). I had to stay on for two more weeks. I took typing as an

elective in high school, so in two weeks time I had not only passed the 18 wpm, but ended up copying (typing) 20 wpm.....plus! (I call this "Morse Code Burn-in"). The ultimate test of radio school, however, was my first airplane ride in the back of a small, single engine plane. We had a "Hot Pilot" who had about two years on me. After doing several stalls, dives, rolls, and loops, we landed. I didn't get sick and I knew I wasn't pale, (the blood in my body never had a chance to pool in one place). The pilot asked, "How was that?..." I replied that other than feeling like I was going to go through the damn floor any second.... not bad! (It was definitely a "white knuckle experience). "Does it change your attitude about flying? Would you go up again?" "Of course" I said. (Ahh, youth!....?). It must have been one of the correct answers..... After gunnery school, I became a crew member on a B-24 Liberator Bomber as a radio operator- gunner. We trained extensively as a crew and eventually were assigned to the Pacific Theater. We flew from many air bases in New Guinea, the Philippine Islands and Okinawa (Ie Shima). Being several hundred miles away from our air base was not uncommon. Radio silence was broken only to send brief, CW, messages. The messages sent were; reporting the results of air-strikes (shortly after the bomb run), and hourly weather reports when flying weather recon. All messages were coded and sent in five character groups. We used Q signals, also, QTE was popular (what is my bearing with reference to you?). It was used when we were not sure where we were. When not flying, we had refresher classes to maintain our skills. Being a busy Radio Operator was a very fulfilling experience.

I have hooked up with several crew members at the annual 43rd Bomb Group Reunions, which are held all over the U.S.A. We do have *Continued on next page...*

a great time, and the war stories get better every year and we admit to it.

I worked for Johnson Controls as a Regional Engineer, assisting our offices in promoting, selling and installing building automation systems for buildings and building complexes. I relocated from Detroit to Cleveland in 1963. In my travels, and my work required traveling, my hidden passion for amateur radio would occasionally surface. I can't say how many times I dih-dah'd mileage markers, truck and exit signs (Morse Code Burn-in).

In 1984, five years from retirement, my hidden passion for amateur radio surfaced again. it was time for action. I enrolled in an evening Novice Amateur course at Pleasant Valley High School. It didn't take much to get up to a speed of 5 wpm (that Morse Code Burn-in works pretty good). I wasn't all that anxious about getting on the air, but I was pretty proud of my Novice license.

I think I peaked as a radio operator while in the service. My "shack" consists of a shortwave receiver and scanner (hardware) and many radio books (software). I also have a Morse Code keyboard and use it occasionally. I'm not too excited about e-mail, internet. and cable television because they are too time consuming. I do have a computer and an internet service provider, but the occasional pop-up advertisements are most distracting. I think I will go back to using library computers for internet use. It is not only commercial free, but it's located a couple of blocks away. As a retiree, my use of the internet and e-mail are definitely minimal.

When I came across the new technician ARRL manual, "Now You're Talking", I bought one,

studied, and passed (CARS V.E. in May 2001). I found out that if I had both a Novice and Tech license, before the big change, I would have qualified automatically for a General Class license. (Ouch!). I'm enrolled in the CARS General Class and hope to "test positive" on 4/5/05. After receiving my General license I will modify my Band-Plan and seriously consider acquiring a mobile T/R unit. In addition to amateur radio, some other interests I have are: genealogy. golf, traveling, family, church, community, friends, VFW, Knights of Columbus.....for diversions there's

always "Jumble", "Wonderword", and "Goren

Bridge" in the Plain Dealer.

Editor's note: What about the crossword puzzle?

My future Band-Plan is; use new mobile T/R, which I don't have yet, and explore, by radio monitoring, what may be ahead for amateur radio on the vast radio frequency spectrum.

Presently, amateur radio is occupying only a small part of it!

When I retired, people asked, "What do you do now that you're retired?" My answer was and still is, "Doing what I want to do".

Isn't amateur radio a great hobby?

de George, KA8JHS

CONGRATULATIONS !

to:

Joseph Ulaszenski KD8BAL
Dorjan Scott KD8BAM
Jane Garson Reed KD8BAN
Henry Oswick KD8BAO
Jeff Hudson KD8BAP

on your new callsigns

and to Kenn Rothman WD8ILB who has been upgraded to a General on the FCC Website

HAMFESTS

LCARA (Lake County) Hamfest: Sunday, April 3rd, 2005. Madison High School, Madison, OH - 8:00 a.m to 2:00 p.m.

CFARK (Cuyahoga Falls) Hamfest: Sunday, April 17th, 2005. Emidio & Sons Party Center, corner of E. Bath Rd. And State Rd. Cuyahoga Falls, OH - 8:00 a.m. to 2:00 p.m.

SETTING UP A BEACON

By Dennis W. Rabbits, KD8APY

I just received my Ham License. I was anxious to get started on my first project. What will it be? Nothing too hard for the old man. After all I don't want to push myself over the top. I got the idea from the meeting when George K8KR was explaining QRP operation to us. I thought that it would be a good idea to make my own rig. I started looking into the different plans that were out there. Some of them said this one makes a great beacon. It just so happens that I wanted to get into working satellites. I was reading on how some satellites only operate for a few hours and then shut down for recharging. Ok, so now you see how I pulled all this together. Maybe you don't, since I made it as clear as mud. Here it is in a nut shell. I know we can't put this puppy in orbit but I can let it run around the backyard. So with what I can find on solar cells and a battery for the storage of power, I started to pull things together. I was able to find a couple of solar cells that were meant for charging a car battery. They only put out 1.5 watts, or I can go for the big bucks and get 5 watts.



1.5 Watts \$10.00 5
Watts \$49.00 (Both are at Harbor Freight)

I decided to go for the 5 watt cell. I could have gone with the cheaper unit, and put four of them together, but I would not have saved that much. That would give me a greater failure rate. With the increase in

parts and multiple connections, I will get just one of the 1.5 watt to experiment with. The 5 watt cell I had to put on order. So now it's time to pick out the battery that I will use.

I don't want to get a head of myself here. I better decide on the rig that I will make so I know my load factor. For that matter I should have done that before I decided on the cells, so I could figure in the charge rate. So that's why they call it **experimental**. It's time to kick back and do some testing. I will set up the cell and the battery with a small drain on the battery, then hook up the solar cell. This can be in operation as I work on the beacon and waiting for the other cell to come in. I will also have to come up with a timer. If you would like to find out more about solar cells check out the site below on how you can set up your own with some kits they have available.
www.siliconsolar.com/buildyourownsolarpanels.htm

So, as I start construction of this project, I conclude part one of this article.

Dennis W. Rabbits, KD8APY
kd8apy@arrl.net

Editor's note: Good luck Dennis! Can't wait for your next installment.

MARCH BIRTHDAYS

Many happy returns to:

WD8SDP Lin Shaw 3-1-32
K8EHP Michael Cegelski 3-2-42
KC8EPX Myra Severyn 3-8
WD8OMK Raymond Severyn 3-11-62
KA8KPB Blaine Coleman 3-18-46
KB8DTC Terry Pillatt 3-18-46
WA8SSQ Tony Hackenberg 3-20
NO2O Fred Partis 3-20
KC8FVN Don Peters III 3-22
WA8LOB Nick Markovic 3-22-36
KB8QHJ Marc Rubin 3-25-66
KB8NW Tedd Mirgliotta 3-27-52
N8DJX Bruce Bacik 3-31-42

PUBLIC SERVICE VOLUNTEER OPPORTUNITIES

The Northeast Ohio Medical Reserve Corps has events coming up this spring/summer which require volunteers for communications as well as medical support. We would like to obtain as many volunteers as possible for these events. The following is a listing of Public Service Volunteer Opportunities:

March of Dimes WalkAmerica — Gund Arena
04/17/2005 Sun 0700-1300
Ham Radio & Medical Support Required

MS WALK Downtown Cleveland
04/23/2005 Sat 0800-1400
Medical Support Required

MS WALK Akron (CVNRA — Boston Mills Ski Resort)
04/23/2005 Sat 0800-1400
Medical Support Required

March of Dimes WalkAmerica — Wade Oval
05/01/2005 Sun 0745-1300
Ham Radio & Medical Support Required

Nat'l MS Society Pedal to the Point
08/20/2005 Sat 0600-1800
08/21/2005 Sun 0600-1800
Ham Radio & Medical Support Required

We will be adding more events in the near future, please check our website at

2. <http://www.neomrc.org/> for them.

To volunteer for any of these contact T.J. Powell @ tpowell@neomrc.org or leave a message at 330-468-1984.

Thank you,
T.J. Powell, PE, EMT-B, N8UIR
President / Chief
Northeast Ohio Medical Reserve Corps, Inc.

D X NEWS

The following is excerpted from the Daily DX newsletter by Bernie, W3UR.

The previously delayed Kure Island (KH7K) DXpedition is now set for September/October 2005. In a press release sent out yesterday KK6EK, Bob Schmieder, reports special call K7C will be used from the extreme northwestern end of the Hawaiian Islands. Kure Island ranks # 10 world-wide and # 6 in Europe on The DX Magazine's Most Wanted List.

Team members will include KK6EK, Bob (Expedition Leader); NI6T, Garry (co-organizer); AD6E, Alan (co-organizer); N6MZ, Mike; N0AX, Ward; N7CQQ, John; W6KK, Charlie; DJ9ZB, Franz; I8NHJ, Max; K6SRZ, Alan (Expedition doctor), and K6DZL, Kathryn (Educational program); plus two more radio operators to be selected. They plan to have four stations active on 6-160 meters on all modes. In addition to the radio operations, the group is developing an innovative real-time interactive Web-satellite-based system called "DXA". This system will enable the DXer to see and interact with activities of the operation as they happen, using any Web browser. The group also will be carrying out several scientific projects in collaboration with naturalists on the atoll to help restore and protect its fragile ecosystem. Finally, the group is developing an educational program that will utilize the DXA resource to enable students to learn from and interact with the onsite team. The project is being strongly supported by ICOM and the Pacific DX Group (KH7U, Kimo and NH6UY, Patrick). The team and project will be visible at Visalia and Dayton. The QSL Manager will be N4XP, Tom Harrell, and cards are to be sent to K4TSJ (club call), Box 1, Watkinsville, GA 30677, USA. The team welcomes comments and suggestions, pilots, programmers, and contributions. The project is being managed by Cordell Expeditions, a nonprofit research organization with a 25-year history of successful
Continued on next page...

expeditions to remote oceanic sites. For more information, please e-mail: info@cordell.org (use "Kure7Cordell" in the Subject line) or any member listed above, and look at the full description on:

<http://www.cordell.org> (click on the 2005 Kure Expedition link).

For info or subscriptions go to

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

THE RANDOM WIRE

By Tom Wayne, WB8N

SPRING IS HERE?

Well, it sure seemed like it was for a few days anyhow, at least long enough for me to finally get my leaves raked up and bagged. The first time I ran my snow blower this season, it looked like I was running a leaf blower!

But alas, winter is still with us, at least for a little while. Let's hope that March goes out like a lamb, since it sure came in like a lion! I guess climbing my tower is gonna have to wait a while longer. It is too cold and windy up there, even at forty feet!

DAYTON JUST AROUND THE CORNER

Figuratively anyway. It won't be long until the great Dayton Hamvention is at hand. It is time to be ordering your advance sale tickets if you have not already done so. (Me neither...yet.) If you have motel reservations, it might be a good idea to make a call and confirm them. And if you are planning on taking the CARS sponsored bus to Dayton, now's the time to sign up for that as well.

CONTESTS

Has anyone been taking part in the contests that have been on the air of late? As I sit here pounding the keyboard I am listening to stations on 20 meters, taking part in the ARRL International SSB Contest. This one's an easy contest. All you have to do is give your call, signal report, and your state. The DX stations are out there begging for contacts. This contest is a good one for raising your countries worked numbers. In just a few minutes I worked Belgium, Croatia, Bermuda, Canary Islands, England, The Netherlands, and Iceland with just 100 watts. If you can hear em, you can usually work em.

For a list of up-coming contests, check out either QST or CQ magazines.

SKYWARN NEWS

Skywarn training for Cuyahoga County will be on Tuesday March 29 at 7 pm. The training session will be held at Harry's Steakhouse located at 5664 Brecksville Road in Independence. This session is free, open to the public and no pre-registration is required. I believe this session is being sponsored by LEARA and is part of their regular monthly meeting.

HAWAIIAN CRUISE

By the time you read this, one of our members will be embarking on a cruise through the islands. I hope he takes his ht with him and works some of the Hawaiian repeaters. Maybe he will report to us on his trip, or writes an article for the W.O. when he returns.

MORE DX NEWS

From the GEARVAKf Bulletin:

DX-pedition to Afghanistan Called Off

The long-planned DX-pedition to Eastern Afghanistan has been called off due to "bad weather," according to Dr. Lothar Bandwipe, Chairman of the GEARVAKf Committee on Skywave Communications. The committee has been planning the trip for several years, but recent reports of cold weather in the mountains led to the cancellation. Dr. Bandwipe said his committee is "looking for another DX-pedition site, perhaps in the Libyan desert".

TTFN

That about does it for another jam packed issue of the ole Wobbly Oscillator folks.

Congratulations to the new licensees/CARS members. Hope to see you at the General License Class sessions.

I hope to see everyone at the next meeting or catch you on the air on one of the CARS repeaters. Or on the CARS net on Wednesday nights. Utilize that license you worked so hard to get, and get on the air. Just listening doesn't count!

Have a good one, and 73 to all...

de Tom, WB8N

Great Lakes Division Convention

Quality Seminars are the hallmark of a Great Lakes Division Convention - at Toledo 2005 as it was with the successful Division Convention at Findlay in 2003. As with Findlay, the Toledo Convention March 19 is in conjunction with the Toledo Hamfest the next day.

Beside the evening Convention Banquet, Toledo 2005 is a day of seminars on current ham radio topics and Division activities. First it features FCC Special Council Riley Hollingsworth, K4ZDH, along with other major ham radio topics. Beside Riley's Seminar on the FCC; the topics list includes WinLink 2000; High Speed Multi Media; Mobile HF operation; DX operating; PSK-31; and Ham Radio clubs. The schedule permits you to attend four of the seven Seminars.

All begins at Noon, Saturday, March 19 at the Toledo Holiday Inn and Conference Center, 2340 S. Reynolds Rd, Maumee or less than two miles from the Sunday, March 20 Toledo Hamfest - your convention credentials is also the hamfest pass.

The Banquet begins at 6:30 p.m. For all those who qualify, a Wouff Hong installation ceremony will begin 20 minutes after the Banquet concludes. Convention fees are \$55 per person for Convention, banquet, and Hamfest or \$30 per person for banquet only.

Send name, call, address and fees to Jeanie Dalton, KB8QLC; Post Office Box 24188; Lexington, KY; 40524-4188. You can phone (859) 245-7703 or E-mail kb8qlc@arrl.net. For Toledo Holiday Inn room reservations call 419-865-1361 or 1-800-465-4329. Mention the ARRL Great Lakes Convention for the special \$69 room rate.

Gary Johnston, KI4LA, of Edgewood, KY, is Convention chairman. Great Lakes Division Director is Jim Weaver, K8JE, of Mason, OH and the Vice Director is Dick Mondro, W8FQT of Dearborn Heights, MI.

Gary NI8Z will represent CARS at Great Lakes Division Convention - at Toledo 2005. We are

looking forward to Gary's report on the convention at our April meeting.

The Wobbly Oscillator is a monthly publication of the Cuyahoga Amateur Radio Society, P.O. Box 31264, Independence, OH 44131-0264. Articles may be reprinted in any Amateur Radio related publication, provided credit is given to this newsletter and the author, if known. All submissions for publication should be emailed in .doc, .wpd, or .txt format to: newsletter@cars.org, by the end of the month for publication in the next month's WO.

Dayton bus trip

Please remember the Dayton bus trip. We are about 2 months from the trip and if we do not get more people signed in the next 30 days it may be necessary to cancel the bus trip, lets hope this does not happen, the bus trip has been sponsored by CARS for many years and we do not want to see it end.

However if members and friends have lost interest in the bus ride this will happen, we can not afford to loose several hundred dollars on the bus when in the last 4 years only 5 to 7 CARS members each year have used bus.

If you intend to ride on the bus this year go to our web site at www.cars.org click on SIGN UP NOW FOR THE BUS TRIP and we can save the bus trip.

de Bob W8GC

CARS 2005 Officers & Committees

Audit

Toby WT8O ** Tina W8HBI, Gary NI8Z

ARRL Liaison

Bill Sarver KC8YSV **

Media Representative

Don KC8NIX **

Christmas Party 2005

Gary NI8Z ** Steve N8IS ** Tina W8HBI
Tom WB8N

Community Education & School Programs

Dave KD8V ** Steve N8IS ** Tina W8HBI,
Kayla N8KAY, Bill KC8YSV

Contests

George K8KR **

Dayton Bus

Terry KB8DTC ** Bob W8GC

Development

Bob W8GC ** All officers

Diabetes events

Tom WB8N ** All CARS members

Field Day

Tom WB8N ** All CARS members

Fox Hunts

Mike K8EHP ** N8IS, N8TCP

Ham License classes

Bob W8GC ** Gary, NI8Z ** Tom WB8N, Steve
N8IS, Ron K8VJG, Bruce N8DJX, George K8KR,
Dave K8DAV

Interference & Jamming

W8GC **, NI8Z, N8IS, N8TCP, WB8N

Scouts

Steve N8IS **, Tina W8HBI, Kayla N8KAY

Lighthouse events

Toby WT8O ** 440-572-1544

Mentor/Elmer

Bill Sarver KC8YSV ** Ron Borkey K8VJG **
Tom WB8N, Bob W8GC

Membership

Tina W8HBI ** Bob W8GC **

Museum Ship W. G. Mather W8WGM

Bob W8GC ** Lin WD8SDP ** All CARS members

NET

Gordon W8GTK **

WO/Newsletter

Tom WB8N ** 440-232-4193

Program directors

Bill KC8YSV ** Jack W8JAK **

QSL manager-NO8A & W8WGM

Tom WB8N **

Refreshments

Terry KB8DTC **

50/50

Kayla N8KAY **

Sunshine (welfare)

Dave KD8V ** 330-666-8721

Technical

Dave K8DAV** Bob W8GC ** Terry KB8DTC
Vince N8OVW, Roy KB8VJF, Tom WB8N
Jack W8JAK, Jim WD8CHL, Steve N8IS

VE exams

Gary NI8Z ** 216-642-8705

Web Master/e-mail

Dave K8DAV ** Bob W8GC **

** chairman or co-chairman

2005 Officers

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secretary@cars.org

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Steve N8IS 216-328-0432
treasurer@cars.org

Board Members

even year executive board 2 year term;

George K8KR
Gary NI8Z
K8VJG

odd year executive board 2 year term;

Gordon W8GTK
Terry KB8DTC
Tom WB8N

K8ZFR trustee

Tom WB8N

NO8A, WA8CMS &

KD8AQD trustee
Bob W8GC

