





# Is it GMT, UTC, ZULU or Coordinated Universal Time

Issue 8 August 2001

See http://www. apparent-wind.com/ gmt-explained.html

The Origin of UTC

The concept of a coordinated universal time was introduced in 1960 when the British and American national time services initiated a program to coordinate the offsets of the frequencies and epochs (phases) of transmitted time service radio signals from Atomic Time in approximating UT2. Subsequently, other national time services joined the

program. The BIH (I am not sure who this is) was charged with the task of monitoring and maintaining the program and introduced the term Temps Universel Coordinni or Coordinated Universal Time for the coordinated time scale in 1964. Initially, the time scale was derived by offsetting its rate from that of Atomic Time to agree with the average rate of UT2 over the past year and was held fixed at that rate for the following year. If the rate of UT2 changed significantly during the year, then an offset (from 1962, in multiples of 100 milliseconds)

could be introduced on the first day of a month. This system of frequency and epoch offsets was continued until 1972 when the current practice was adopted of keeping the rate of UTC equal to that of Atomic Time and introducing leap seconds when needed to keep UTC to within 0.9 seconds (it was 0.7 seconds until January 1975) of UT1.

23

73 Gary/ni8z



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**Frequencies** 



# The Random Wire

# by Tom Wayne WB8N

#### IS THAT ALL THERE IS?

Now that we have the CARS Hamfest and Field Day behind us, you might be thinking: Is that all there is?. Unlax Doc, as Bugs Bunny was want to say... there is more to come. Although it is not an official CARS function, the MS Pedal to the Point is coming up in September, and many ham volunteers are needed for that event. More on that elsewhere in this issue. Also there are many hamfests coming up if that is what you are looking for. There is a list of those also elsewhere in this issue. In the coming months there will be other activities of interest as well. Stay tuned folks.

#### **NEW ASSOCIATE MEMBER**

There is a young man named Mike Lorens, who is severely handicapped. He is confined to a wheelchair and is unable to use his arms, hands or legs. He is able to speak with some difficulty and it is extremely hard to understand him. He is very much interested in amateur radio however, and he has a hand-held scanner which he listens to. He listens to our repeater as well as other stations.

We met Mike a few years ago, when his mother brought him out to our Field Day. He had been listening to us on 2 meters and begged his mother to take him to our Field Day site. He spent the better part of Saturday with us, just watching and listening and he had his

mother bring him back again on Sunday. He has visited our Field Day sites for the past several years now as well as our most recent one.

Because of his enthusiasm and interest in amateur radio, at



the invitation of CARS, his mother brought him out to the July CARS meeting, where Mike was presented with a ARRL 2001 Field Day pin, a T-shirt with the CARS logo on it, and a certificate making him an associate member of CARS. Mike was pleasantly surprised and you could tell that this made his day!

Mike lives with his mom and dad, Lynn and Duane Lorens, in Walton Hills. He attends a workshop that he goes to daily. According to Mike's mother, his grandfather was a ham, but she

does not remember what his call was. Congratulations Mike, and keep listening!

#### **MORE CONGRATULATIONS!**

Congratulations to Aaron Clark KC8INE, who passed his test for his general license at out most recent VE session. Way to go Aaron.

Aaron was on the Field Day committee and worked a 6 meter phone station, as well as some 40 meter phone. That must have inspired him to upgrade.

#### DOG DAYS OF SUMMER

As I sit here writing this, during the last part of July, it seems that the dog days of summer are here a bit early. I remember them coming along about the middle of August!

Grass is turning brown and everyone you talk to agrees that we need rain. But not on the weekend, or certain other days when you have something planned. If only it would just rain during the night time hours! There are some things that I need to get done around here, such as some painting. Maybe I'll wait until early fall for that chore. I also need to go up my tower and tighten the bolts holding the rotator. It is held on by only three of four bolts, the fourth bolt being extremely loose. It made it through this past winter that way, but I don't want to test it another winter. I'll have to take care of that soon.

# The Random Wire

# by Tom Wayne WB8N

That is more important than painting. If only I could get motivated during these dog days of summer.

# WEELKY WEDNESDAY NIGHT NET

Don't forget to check in on the CARS net on Wednesday evenings at seven o'clock.

There are some new net controllers running the net, taking turns. Stop by and say hello if nothing else. There is always something of interest mentioned that just might catch your fancy. Mark it on your calendar. Don't forget to check the calendar though.



#### FOXY !!!

At the August meeting, which will be our last meeting in the park for the year, Roger N8TCP will be hosting a fox hunt which will take place before the meeting. In case you are not sure what a fox hunt is, a transmitter is hidden somewhere and the hunters are given a list of clues to use to help them locate the transmitter. First person or group to locate the "fox" wins. Come on out early this month and join in the fun. Bring your HT's and an extra battery, and any other equipment you think might assist you in finding the fox, such as attenuators, directional antennas, etc.

Don't forget to bring something to cook on the grill as well. We always have a cook fire going for those that want to cook out. Of course you can always stop at Mickey D's or pack your own supper.

#### **GOING QRT**

That about does it for this month guys and gals. Hope to see you at the coming meeting or at least catch you on the repeater.

73 for now,

de Tom, WB8N

### **UPCOMING**

#### **HAMFESTS**

(only the closest ones)

Aug 18 Portsmouth Ham fest contact Jack King KB8NBI 740-372-5871

Aug 19 Warren Ohio Kent State Univ. Trumbell Campus talk-in on 146.940

Sept 9 Findlay Ohio Hancock County Fairgrounds talk-in on 146.700

Sept 23 Cleveland Ham fest Berea Ohio Cuy. County Fairgrounds talk-in on 146.730

Oct 7 Medina Ohio Medina County Nat'l Guard Armory talk-in on 147.030

Oct 7 Ashland Ohio Ashland County Fairgrounds talk-in on 147.105

Oct 28 Canton Ohio Stark County Fairgrounds talk-in on 147.180

**Club NET every Wed** 

@ 7:00 PM

-146.82

Where is the "FOX...

# ALCOHOL-FREE HAM RADIO IS MAJOR GOAL OF FCC

reprinted from the **GEARVAKf Bulletin** (the f is silent) by **K8DMZ & W8FYO** 

The FCC, in conjunction with the U.S. Justice Department, has set a goal to make the ham bands alcohol free by the year 2005. Toward that end, it has enlisted the aid of federal officials in setting up and operating sobriety check-points on the various ham bands. Beginning on January 12, 2002, U.S. Marshals will begin unannounced random checks of all ham radio operators using the 75-meter phone band. The 75-meter checks will be expanded to cover all HF bands by mid 2003, VHF, UHF, and GHz microwave bands will be added in 2004 and 2005. The 75-meter band was chosen for the start of the program because that is where the majority of DWT (drinking while transmitting) offences occur.



Marshals will use radio profiling methods to determine which hams may be drinking while transmitting. While most of those characteristics used for profiling remain a closely guarded secret, they are known to include: slurred speech, operation off frequency, talking too long without station identification, discussion of controversial and politically incorrect topics, criticism of legal and judicial authorities, and public assertion of individual Constitutional rights. Hams exhibiting those and other secret profile characteristics will be considered as having met the requirements of probable cause, and will be immediately visited by federal agents. As holders of federal licenses, hams and their property are exempt from Constitutional search and seizure strictures. By law, first-time offenders are presumed guilty, and may be fined up to \$10,000 and imprisoned for 12 months without trial. Known criminals, however, will be released on recognizance bond. **Stay tuned folks**.

# Weekly Net Schedule

# Gordon Kolus KC8IOU

Th following members have agreed to host the weekly CARS NET.

AUG. 1 WB8N AUG.8 NI8Z AUG. 15 MTG. AUG. 22 KC8KQO AUG. 29 KC8IOU SEPT. 5 WB8N SEPT. 12 NI8Z SEPT. 19 MTG
SEPT. 26 KC8KQO
OCT. 3 KC8IOU
OCT. 10 WB8N
OCT. 17 MTG
OCT. 24 NI8Z
OCT. 31 KC8KQO
NOV. 7 KC8IOU
NOV. 14 WB8N
NOV.21 MTG

NOV. 28 NI8Z
DEC. 5 KC8KQO
DEC.12 KC8IOU
DEC.19 WB8N OR X-MAS
DEC. 26 NI8Z
JAN. 2 KC8KQO
JAN. 9 KC8IOU
JAN. 16 MTG
JAN. 23 WB8N
JAN. 30 NI8Z



# FROM THE PREZ'S SHACK

July 18 our second outdoor meeting of this year was well attended and enjoyed by all, we had 17 members and 8 visitors.

Ron K8VJG had the usual supply of doughnuts, coffee and pop, Ron is also providing a PA amplifier and speaker for use at our outdoor meetings. Ron collected \$46.00 in the 50/50 drawing and for the second meeting in a row Nick WA8LOB was a winner! His + was \$23.00, last month he won a digital compass valued at \$49.00.

It was nice to have Brenda KB8IUP our ACC and her husband from Toledo attend our meeting.



Linda K8LJB was happy to receive the \$100.00 gift certificate from AES that Linda won at our Hamfest.

Linda and husband Larry K8LLB enjoyed our meeting and will continue to attend when they can. This year our Christmas Party will be held at Harry's Steak House, 5664 Brecksville Rd, in Independence on December 15, 2001. This year we are having a Christmas raffle to help keep the cost of our party down, a \$5.00 donation per ticket, with 1st prize of \$400.00 2nd \$200.00 3rd \$100.00, all profits go to offset the CARS Christmas party expenses. See Judy KC8FHE for your supply of tickets to sell, only 300 tickets will be sold. Sell them to friends, relatives, co-workers. Hams, non Hams anyone. Whoever sells the most tickets will receive 2 free tickets to the Christmas party. Rumor has it that someone has already sold 20 and is asking for more!

Sunday July 22, 2001 Steve N8IS, Ted W8TTS ARLHS member #115. Scott KC8HNV and mvself W8GC ARLHS #332 activated the "Cleveland West Pierhead" USA-178 Lighthouse from the Museum ship W.G. Mather. We had 90 Lighthouse contacts in just under 2 hours of operating time. This was National Museum Ship weekend so we worked several stations with the Mather's call KC8EXL. It was a very busy day as Sunday's Triathlon had both there finish line and bike parking area next to the Mather, we had a + mile walk to get to the ship. Ted W8TTS is a friend we found through a common interest in Lighthouse activity. Ted is also the Treasurer of the Cuyahoga Falls Amateur Radio Club (just beat us out at FD 5A & 6994 points), Scott KC8HNV is his son. Time was short but we all had a

great time thanks to the hospitality of one of our members Lin Shaw WD8SDP.

Mark your calendars, at the August 15 CARS meeting we are having a "FOX HUNT", just be there by 6:15 pm and enjoy yourself, we will have 1, 2 or 3 prizes for the winners, depends on how many join in the fun. Contact Roger N8TCP 440-843-6723 for details.

Steve N8IS and I will be contacting the members who volunteered to operate during the National Lighthouse weekend. August 4 & 5, and for the International Lighthouse weekend August 18 & 19 to see who can make it. We promote CARS by using the CARS special event call NO8A, QSL requests will be answered 100%. I would expect to make several hundred contacts during these events. a great chance for Tech & Novice license holders to get some experience on 40, 20 & 15 meters.

See you at the August meeting, the last one in the park this year. We have many projects going on, enjoy your membership come out and join in.

**73, Bob W8GC** 



# **MEETING MINUTES**

Bob W8GC called the July 18th meeting to order at 7:35 p.m. at the Oak

Grove Picnic Area in Brecksville Metro Park, 17 Members and 8 Guests were in attendance.

Duncan KC8KQO moved to accept the June minutes as they were published in the WO, second by Roger N8TCP.
All in favor.

Judy KC8FHE gave the Treasurers Report. Ev WA8EYF moved to accept the Treasurers Report, seconded by Roger N8TCP.

Tom WB8N made a special presentation to Mike Lorens. Mike was presented with a field day pin for the year 2001, t-shirt with the CARS logo and a framed certificate. He is now an associate member of C.A.R.S.

Tom WB8N reported Field Day went really well we had five stations plus a 6 meter station. C.A. R.S. achieved 5,916 points. (Surpassing our best field day from two years ago.)

Jim KB8SQF has been appointed the new WO Newsletter Editor. Any one sending him information for the newsletter/articles should be sent in Microsoft Word DOC format, .RTF or .TXT (windows text) formats. Please do not use Corel Word Perfect as it is hard to important into the PDF program.

Gary NI8Z our program director introduced Brenda KB8IUP.

Brenda is the ARRL Affiliated Club Coordinator (ACC) she traveled from Toledo to give us a presentation on what it means to be a ARRL Special Service Club.

Hamfest Winner: Linda Beane K8LJB was one of our Hamfest prize winners attended the meeting and Steve N8IS presented her with an AES Gift Certificate for \$100.00, congratulations. Also best wishes to your family & pets.

School Special Event: Larry Beane K8LLB talked about how his club and C.A.R.S. will try to do a special event with an elementary school in their area and one in our area. More details to follow in the future.

Library donation: C.A.R.S. donated a complete set of 16 ARRL Amateur Radio Books to the Cuyahoga County Regional Library, Parma branch. Last week we had to retake a picture and were informed all but seven of the books were were out on loan.

Tech Report: Roy KB8VJF reports that the voice change to the 443.825 repeater has been made. No chipmunk voice. The 146.820 has no Bonnie -(voice recorder). The voice recording has been changed to Clyde. Club needs to purchase a new battery back-up, a replacement PC with sound card and wave file program need to be installed at the 82 site. The club needs to follow up on purchasing filters to

fix the interference problems on the 6-meter repeater. There is an tri-band antenna at the Broadview Hts. Fire Department the antenna is ours we need to see if we Can get it back. (Installed as a possible future site that was never activated.) Auto dial maintenance and exchange updates is also needed.

Membership: Steve N8IS announces Marc Rubin KB8QHJ as our newest applicant to be voted on tonight. The vote was unanimous in Favor. (Marc was not present.)

50/50 Drawing: Ron K8VJG collected \$46.00 for the drawing. \$23.00 to Nick WA8LOB our winner. A special thanks to Ron K8VJG for the use of his audio amp system for tonight's meeting.

Christmas Raffle: On November 18th there will be a drawing for the CARS 2001 Christmas Raffle, only 300 tickets will be sold, First Prize \$400, Second Prize \$200, Third Prize \$100. The cost is a \$5.00 donation per ticket with all profits going to offset the cost of this years Christmas Dinner to be held December 15. All members please try to sell as many tickets possible, contact Judy to get your tickets.



# **MORE MEETING MINUTES**

<u>Pedal To The Point</u> (October 6th) needs Amateur Radio Operators. Contact Jeff Garvis N8YNR if you can help. This is a 2 day event, approximately 2000 bikers will be in attendance. Most Hams will be positioned at rest stops. E-mail Jeff@cia.net or visit www.mspeddle.org N3T will be the call sign used for Pedal To The Point.

<u>Fox Hunt:</u> At our August Meeting we will have a FOX HUNT starting at the Oak Grove Picnic Area. Departure time will be at 6:30 p.m. it will approximately 3 to 4 square mile area hunt. Information needed will be your team name, mileage start & end and time out and back. (The best time and least miles will win.)

<u>Lighthouse Events</u>: Special thanks to those who volunteered to operate during the August Lighthouse Events, one National on the 4th & 5th and one International on the 18th & 19th. Contact Bob W8GC for more information. Thanks to Ev WA8EYF, Gary NI8Z, Gordon KC8IOU, Ron K8VJG, Roy KB8VJF, Tom WB8N, Judy KC8FHE, Jim KB8SQF, George K8KR, Fred NO2O, Terry KB8DTC, Duncan KC8KQO, Roger N8TCP and Steve N8IS for offering to participate. A special trip to Marblehead for a joint Lighthouse

activation with Brenda KB8IUP our ARRL SSC and her husband is in the works. Bring your picnic basket and families.

Roy KB8VJF moved to adjourn the meeting at 8:53 p.m. EST seconded by Ev WA8EYF, passed.

#### Steve, N8IS Secretary



# <u>Treasurers' Report</u>

# Account Transactions CARS 07/14/2001 Through 07/25/2001

RAFFLE 23.00 DUES 45.00 XMAS-IN 20.00 Miscellaneous (42.42)FIELD DAY (65.00)POSTAGE & FOOD (20.00)XMAS-OUT (00.08 Total (119.42) Dues are \$20 per year for individuals Please send them to the post box Po Box 31264, Independence, Ohio 44131

submitted,

Judy Crane KC8FHE

### **FOR SALE**

The following is a list of items CARS will offer for sale to our members at the August 15, 2001 meeting.

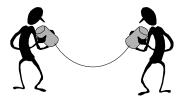
Anything not sold will be taken to Hamfest's or put on E-bay. Anyone interested please come early to look at the items, we will have a short auction at the close of the meeting.

- 1 **Azden PCS4000** 2 meter mobile radio with mike #205679 ( no pl tone installed ) age unknown. start
- min. bid \$15.00.
- Triplite PR7A power supply age unkown. cosmetic condition good, seems to work ok min bid \$25.00
- 3) HF radio **Ten Tec Paragon 585** w/ mic age 15 -20 yrs , cosmetic condition good. working on some bands not on 20m 10m will need to send in to Ten Tec for repairs. Est \$150.00 to \$200.00 for repair plus shipping both ways. In good working condition worth about \$550-\$750 min bid \$250.00
- 4) HF radio **Ten Tec Corsair II w/2nd VFO** and mic. age 20 -25yrs? cosmetic condition good. no output on all bands. will need to send to Ten Tec for repairs. \$150.00+ parts for repair at Ten Tec plus shipping both ways. In good working condition worth \$500-600 **min bid \$150.00**
- 5) Antenna tuner **MFJ 969** age 3-5yrs seems ok looks good. working condition \$90 -\$125 **min bid \$50.00**
- 6) Antenna tuner **Heathkit SA2060A** age 20-25yrs, not working bad coax selection switch, not the out side switch, but the inside one, so far can not find a replacement. \$125 in good condition. **Min bid \$50.00**

- 7) **Drake WH7** watt meter, cosmetic good, working OK, age 15-25yrs value \$75 **min bid \$30.00**
- 8) **MFJ 207 SWR bridge** cosmetic a little rough on the dial, works ?? Not sure about calibration, worth about \$50.00 **min bid \$20.00**
- 9) **Heath Kit B610** monitor scope age ??? cosmetic ok, some parts a little rough, working ??? value \$70 **min bid \$15.00**

The rest is just stuff for people to go through and see if they want anything some books, junk.





# **Who YA Gonna Call?**

#### **OFFICERS**

\* denotes chairman

#### President:

Bob Check - W8GC 216 - 524 - 1750 President@cars.org

#### VICE-PRESIDENT:

Gary Dewey - NI8Z 216-642-1399 VicePresident@cars.org

#### SECRETARY:

Steve Riley - N8IS 216-328-9276 Secretary@cars.org

#### TREASURER:

Judy Crane - KC8FHE 216-524-1537 Treasurer@cars.org

### BOARD OF DIRECTORS

#### **ODD YEAR EXPIRATION**

Gordon Kolus - KC8IOU 330-225-6917 KC8IOU@cars.org

Terry Pillatt - KB8DTC 330-273-1043 KB8DTC@cars.org

#### EVEN YEAR EXPIRATION

Bill Koenig - AA8WJ

Ron Borkey - K8VJG 440-237-6718

#### LICENSE TRUSTEE

Monica James - N8HTX For K8ZFR 330-468-2035 Trustee@cars.org

#### LICENSE TRUSTEE

Bob Check - W8GC For NO8A President@cars.org

# STANDING COMMITTEES

\* denotes chairman

#### HAMFEST

Rich James\* - N8FIL 330-468-6021

#### JAMBOREE ON THE AIR

Roy Hadden\* - KB8VJF 330-468-3020 Paul Valley - KC8AMD 440-237-8116

#### **M**EMBERSHIP

Steve Riley\* - N8IS 216-328-9276 Secretary@cars.org

#### NET

By Committee Gordon Kolus\* - KC8IOU 330-225-6917

# MEETING PROGRAM DIRECTOR & ELMER PROGRAM

Gary Dewey\* - NI8Z 216-642-1399

#### REFRESHMENTS & 50/50 AT MEETINGS

Dave Morley\* - W8IXY 440-884-0650

#### SUNSHINE (WELFARE)

**Aaron Clark - KC8INE** 440-526-9705

#### TECHNICAL/VA HOSPITAL

Rich James\* - N8FIL 330-468-6021 Roy Hadden - KB8VJF 330-468-3020

#### VE EXAMS

**Gary Dewey\* - NI8Z** 216-642-1399

#### WEB SITE/E-MAIL

**Greg Kopp\* - KG80** 216-577-1388

#### **WO/Newsletter**

Jim Crane · KB8SQF 216 · 524 - 1537 newsletter@cars.org

# AMERICAN RED CROSS DISASTER LIAISON

**Ev Chitester\* - WA8EYF** 216-581-3657

#### CARS QSL MANAGER

Tom Wayne\* - WB8N 440-232-4193

# COMMUNITY EDUCATION & SCHOOL PROGRAM

Dave Dressler\* - KD8V 330·666·8721 Tom Wayne - WB8N 440·232·4193 Paul Valley - KC8AMD 440·237·8116 Steve Riley - KC8GCA 216·328·9276 Ron Borkey - K8VJG 440·237·6718

#### **D**IGIPEATER

Tom Wayne\* - WB8N 440-232-4193

#### FIELD DAY 2002

Tom Wayne 60\* - WB8N 440-232-4193

Dave Morley 60\* -W8IXY 440-884-0650

Aaron Clark - KC8INE 440-526-9705

#### **N**ewsletter

Jim Crane— KB8SQF 216-524-1537

# August 2001

\*Note: anyone interesting in learning more about fox hunts in NorthEast OHio go to http://www.egroups.com/subscribe/ neohfoxhunt



Sun	Mon	Tue	Wed	Thu	Fri	Sat	WHAT'S Happening
							Aug 4-5 AR Lighthouse society
			1 NET 7:00 pm	2	3	4	Aug 14 VE test Cuyahoga Falls, Stow, OH 7pm  Aug 15 CARS Picnic Meeting
			_	_			and Fox Hunt*
5	6	7	8 NET 7:00	9	10	11	Aug 17-19 Intl Lighthouse week- end
I			pm				Aug 17-19 Centralia III, Balloon- fest
12	13	14	15 Club	16	17	18	Aug 18-19 MS150 Pedal to the Point contact Jeff Garvas
			meet- ing		<b>}</b>		Jeff@cia.net
			9				Aug 19 VE test Lorain Ctr ARA Red Cross 1pm Elyria, Oh
19	20	21	22 NET 7:00	23	24	25	Aug 25 VE test Massillon Senior
			pm				_ / · .
26	27	28	29 NET 7:00	30	31		
			pm				5 S



# **Pedal To The Point Bike Tour**

### 2001 Key Bank MS Pedal To The Point Bike Tour

This summer, on August 18th & 19th over 1500 men, women and children will take to the streets of Northern Ohio to ride their bikes 75, 100 or 150 miles to raise money to fight Multiple Sclerosis.

This is one of the largest bike tours in Ohio supported by Amateur Radio operators. This two day, twenty-four hour event utilizes well over 500



The Wobbly Oscillator is a monthly publication of The Cuyahoga Amateur Radio Society.

Articles may be reprinted in any amateur radio-related publication provided that credit is given to the newsletter and the author.

volunteers. A significant portion of those volunteers happen to be radio operators and medical volunteers. As radio operators in this event our primary purpose is merely to ensure the safety of every rider by providing communications to every aspect of the route. Since it's start 14 years ago hams have been involved.

In 1999 ham radio operators provided communications which saved the life of a man who suffered a heart attack shortly after leaving the start on day two. Our HAMS, the APRS network and trained EMTs brought this man back. Without us anything could have happened.

This year we want to increase the number of volunteers. Are you up to the challenge? We can use anyone for almost any shift of time. Camping is available at Sandusky for two-day volunteers, or you can bring a sleeping bag to sleep in Sandusky High School. Those who spend more than 8 hours

volunteering qualify for discounted Cedar Point tickets good for the remainder of the season. Everyone receives a MS Pedal t-shirt and free food along the route at rest stops, lunch, dinner and breakfast and lunch on day two You just have to see how they makes Pancakes at 5am for 2000 hungry bikers and volunteers. This event is 99% fun and 1% work so make plans to come out!

Positions: each rest stops for each day, at the start and finish, between rest stops, in medical vehicles, in roaming vehicles, in sag vehicles, and more. WE ALSO NEED: Many nurses or nurses in school to help staff first aid booths at each rest stop.

To volunteer please contact Jeff Garvas via telephone at 216-552-4368 or e-mail at jeff@cia.net

# From the Editor KB8SQF

Submissions received by the end of the month will be published in the following month's *Wobbly Oscillator*.

Send articles by E-mail to: Newsletter@cars.org

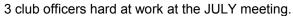
or by U.S. mail (diskette form with files in either \*.txt or \*. doc ) to:

The Wobbly Oscillator 6531 Tanglewood Ln. Seven Hills, Ohio 4131

# **DUES DUE NOTICE**

KB8BMY	Michael 7	06/30/2001	
KC8OUH	Jeff Vene	07/19/2001	
N4OSD	Chuck So	07/19/2001	
K8JHL	James Lo	07/22/2001	
KC8MRC	Robert Oz	zog	07/31/2001
AA8WJ	William	Koenig	08/30/2001



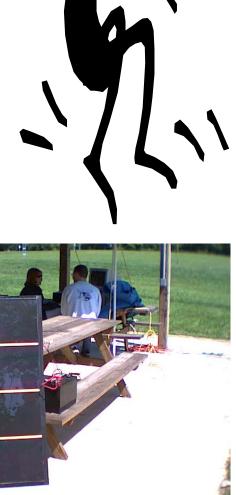


Treasurer -President Membership Chairman

Judy Bob Steve KC8HFE W8GC N8IS

Speaker for field Day?

**No Solar Power Panel** 

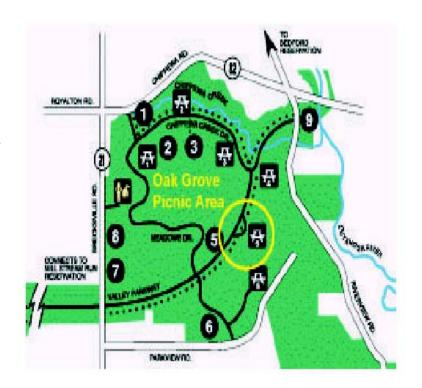


## **Summer Meetings**

Just a reminder that for the months of June, July, and August we will be holding our meetings at the Oak Grove Picnic area of the Cleveland Metroparks - Brecksville Reservation. Get there early and cook out, charcoal provided by the club.

Bring your own food and beverage. Kids and spouses welcome!

P.S. The fire is ready by 5:30 pm Thanks to **Gary NI8Z** or **Tom WB8N**—Thanks Guys.



# Regular Meetings

Our regular meetings are held in the Community Room at the Bush Funeral Home (Downstairs).

#### 7501 Ridge Rd. Parma Ohio.

We encourage all friends and members to attend these meetings.

NOTE: 7:30 PM Sharp

