Next Meeting: Sept 22 at the MCL Cafeteria in Kettering

ANOMALOUS PROPAGATION

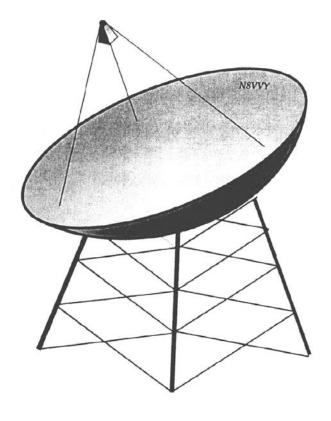
Newsletter: $\it The\ Midwest\ VHF/UHF$

Society

Editors:

Gerd Schrick, WB8IFM 4741 Harlou Drive Dayton, OH 454 32 (937) 253-3993 WB8IFM@ARRL.net

Steve Coy, K8UD 3350 Maplewood Dr. Beavercreek, OH 45434 (937) 426-6085 K8UD@ARRL.NET



Material from this publication may be copied with due credit to the source

Annual Society membership is \$ 12.00. Please make checks payable to Joe Muchnij



Vol.31 No.7 www.mvus.org Sept. 2017

Beacons: 1296.079 W8KSE EM79ur Dayton, OH---- 2W to Big Wheel at 800' AGL.

Listen for the **K9AYA Beacons** at EM79qk, 2W @ 10,368.000 MHz both are copied by K4TO daily. 1W @ 5,760.000 MHz

De N8ZM		3
This and That	4	
OIM's Dream	5	
Metric System Revisited	6	
Einstein's Legacy	7	
Beacon Report by K4TO	8	
Nicola Tesla	8	
MVUS Roster 1	9	
MVUS Roster 2		10

MVUS Officials:

Pres. Tom Holmes, N8ZM,
Vice Pres. Mike Suhar, W8RKO
Secretary, Jim Bacher, WB8VSU
Treasurer, Joe Muchnij N8QOD
Bulletin Editor, Gerd Schrick, WB8IFM
Assistant Editor, Steve Coy, K8UD
Membership: Joe Muchnij, N8QOD
E-mail: Jim Bacher, WB8VSU

Upcoming Event:

2017 Microwave Update Conference Sansa Clara, Cal. Oct. 26-29 **DE N8ZM.** In my last column I wrote about Hurricane Harvey, and since then we have seen Irma, Jose, Maria, and several more behind those are forming. Seems like it is going to be a rough year. Our best wishes to all who have been or will be affected.

I just returned from attending the TAPR Digital Communications Conference in St. Louis, and it was, as always, very interesting and inspiring. Topics were wide ranging, from a Raspberry PI and Internet based scheme for group code practice, to a whole afternoon dedicated to the studies made of the effects of the recent eclipse on RF propagation. Most of the talks were by a group of young hams who are undergraduates with HamSCi, a group of citizen scientists sponsored by the New Jersey Institute of Technology. These 'kids' did an outstanding job with their presentations, and more important, had done great work in planning and implementing the experiments and data collection they wanted to do. And our own N8UR gave an interesting talk on how to fill a terabyte disk with data from the eclipse. Lots of good stuff!

The ARRL VHF contest was a couple of weeks back, and we had a lot of participation on our end, as well as on the air, although band openings were not plentiful. It was interesting to see how many digital mode QSO's were made, which generated a lot of controversy on the VHF Contesting reflector. The complaints were mostly that folks were spending too much time using digital to QSO for contacts that would have gone faster on CW/SSB, thereby wasting valuable contest time. Another complaint was that it was becoming a computer-to-computer contest. The anti-Luddite movement, of course, felt that anything that helps make contacts is a good thing. Some proposed penalizing digital contacts by only scoring them with half the points as traditional modes. I tend to agree that digital mode tended to hold the op's attention at our 6m position; we often had to tap them on the shoulder to move them back to SSB. Seems to me that some sort of adjustment is in order. Possibly allow two signals simultaneously on 6m if one is digital?

Also last month I mentioned that we would like to move as many of you to the email version of Anom Prop as possible as a way to free up funds for projects such as beacons. I believe only one person responded, so I assume that others simply have delayed responding and will email me soon to provide an updated email address. Thanks.

For planning purposes, Here are the dates of the MVUS meetings for the next three months, unless I hear loud objections. October 27, which may conflict with some Beggar's Nights but being away for the evening might be a good thing; November 24, the traditional day after Thanksgiving; and December 22, which appears to be far enough before Christmas to be acceptable. I hope to see as many of you as possible on those dates!

This & That 9-17

Frogs. Not everywhere where there is water will you find frogs, but where you hear frogs there is water. [Goethe]

Logic. So far as the laws of mathematics refer to reality, they are not certain. And so far as they are certain, they do not refer to reality. [Albert Einstein]

Its the Law. You hear that often, but how is it implemented? Well, lawyers find loopholes and judges try to plug them. [Gerd]

Old Saying. Why make it simple when you can make it complicated.

[German Saying]

Law of Probability. The probability of being watched is directly proportional to the stupidity of your act. [Universal Laws]

Law of Random Numbers. If you dial a wrong number, you never get a busy signal and someone always answers. [Universal laws]

Children. It takes more money to amuse to-day's children than it took to educate their parents. [Unknown, L.M. Boyd]

December of 1999. How many artificial objects are circling the earth these days? About 110,000, at last report. [L.M. Boyd]

World Status. The trouble with the world is that the stupid are cocksure and the intelligent are full of doubt. [Bertrand Russel]

Congress. There is no distinctly Native American criminal class... except Congress.

[Mark Twain]

In Session. No man's life, liberty or prosperity is safe while the legislature is in session. [Mark Twain]

Internet. Nothing on the Internet is safe and everything can be hacked. [Theonis Bates]

American Politics. Politics is the art of looking for trouble, finding it everywhere, diagnosing it incorrectly, and applying the wrong remedies. [Groucho Marx]

LED Polarity. It's a diode: the longer lead is positive, the shorter negative. [Gerd]

Choice. The fact that choice does not guarantee quality should be clear each time we flick through 500 cable TV channels without finding a single viewing option. [Linda Darling Hammond]

What do OM's want, when They Get Old?

Used to be they got for themselves a little sports car. That's what a good friend of mine did who was well ahead of me in years. However, he never invited me for a ride and I don't think he used it much. I see this problem now with my (radio) station. All is there, in working order, but I am not on the air often, as I used to be! I think we are "over extended" prisoners of our gadgets that require steady attention.

But what replaced that little sports car? I have recently seen more PU trucks driven by single old guys. Seems like they like the camaraderie with other PU drivers. I have a good friend who is 10 years older who had to have a PU, he got one and actually drove around in it. We once even went together on a day trip. Now he is beyond driving cars, but likes to reminisce about the horse he once owned and then the big motorcycle. He's got pictures of both in his room. Then there are the neighbors who go out and buy humongous riding mowers with headlights and motorcycle grade mufflers, called resonators for that special sound effect.

But we digress. What did "Gerd" want for his golden years? Well, of course, a pure Electric Car. What got the coup of the ground was when our son, visiting over Labor Day, found the right car for dad, which is now sitting in the garage filling the spot previously taken up by the big station wagon which found an untimely end earlier this year. The predominant electric apprtoach today is the "Hybrid" car, which has a combustion engine **plus** an electric motor. So you have the best of the two systems, but, of course, the added weight and complexity. The equivalent MPGs for the Hybrids are in the 50ties, while the pure Electrics get about 120.

The present drawback for the electric car only is the limited range of about 100 to 200 miles,, good for a small to medium size town. A pure electric for longer trips has to wait for a bigger or better battery or a system where batteries can easily be swapped. Charging stations are OK, when you have the time for a charge, like if you have the opportunity at work to plug your Electric in in the morning and find the battery fully charged at night for the way home. There are also a number of charge stations around town, mostly at businesses that value your visit. Our Air Force Museum has a high voltage charge receptacle, which is almost as close to the door as the handicap parking spaces.

The e-cars' high voltage batteries can be charged with your regular 120VAC or from a higher 240VAC special receptacle. The high voltage charging is about three times as fast as the low voltage. In my case you need 20 hours while the "fast charge" takes only 7 hours. Since I am retired, I am pretty much in control of my schedule. So I can easily skip a day to get my battery completely charged, if I needed the full charge for my next mission. All this can be worked out and I am looking forward to it and accumulating experience. The car only comes with the 120V charger, which is ubiquitous in every American house or garage. However, looking ahead I had an 240V outlet installed ca 25 years ago. This outlet is presently fused at 20 Amp (needs 30), I have to check whether the wiring supports 30 Amps, which would cut the charge time and get it in the overnight range!

As I write this I have only been on three trips and just want to relate my first impressions. After paying the drop-off charge to the trucker and getting the keys handed, I got into the car, positioned my seat, adjusted the mirrors then inserted the key, turned it and nothing happened. The xyl and a technician watched me. I fumbled around, found the button to move the side window down and commented "it's not starting". The technician looked puzzled,

then remarked: "Sir, the motor is running." He was right. The electric motor is so quiet, that this is a common experience. When you drive through a neighborhood and go below 25 Mph, the car will generate acoustical noises to warn people of its presence.

Gerd, WB8IFM

The Metric or the Decimal System.

Reprinted from 2015

Only three countries in the world are not using the metric system. Those are the United States, Liberia and Burma (Myanmar). Some timid attempts have been made to introduce the metric system of measurements, but with no success. Occasionally some horrific errors are made when converting to metric from another system. When I ask why not changing to the Metric System, the typical answer is, it's hard enough as it is, we are in no mood to learn another system.

I can attest to that; after the 50+ years in this country I still have to struggle with certain measurements, hard to convert, to memorize etc. I still have to look up weights and volumes, just too awkward to memorize. In 1964 I got a booklet with 18 pages **of conversion factors,** there are about 1300 of them. To this day I use this booklet, which is showing its age.

When you change the word "metric" to "decimal" you have a much better word to describe this system. It is also known as the SI system. SI (St I) is French for international standards. For length on earth you have the meter and all other length measurements are related by multiplication or division of 10s as per the table below. Weight and volume are just as easy and uniform, and as you get into scientific work of the very small all is metric. However, because of the immense distances in space, light years are used.

Now compare this with the US system: you got the foot, and there are 5,280 feet in a mile. On the other end you got 12 inches in a foot. The inch is divided into halfs, quarters, eights, sixteens etc. In fine measurements the inch is divided (metric wise) into "mils" which are 1/1000s of an inch.

Of course, the US has been using the decimal system with money for a long time, but they still had to have quarters, just to make it a little harder to count money. Unnecessary learning effort and confusion can be avoided by switching to metric, which in today's world should be a no-brainer. A good website which explains "metric" very well is: www.mathsisfun.com. I bet you, if you look at it, you will admit that you already know all this and the rest, using it, is a "piece of cake!' So let's get with it. A hint, when it comes to using length measurements: the multiplier 10 and 100 for the meter are seldom used as is 1/10th. So, if you go big, you jump to km (kilo meters) and if you go smaller you go to cm (centi meters).

Gerd, WB8IFM

Tera	T	1,000,000,000,000
Giga	G	1,000,000,000
Mega	M	1,000,000
kilo	k	1,000
hecto	h	100
deca	dK -or	- da 10
metre,	gram,	liter, second, celcius
deci	d	.1
centi	С	.01
milli	m	.001
micro	μ	.000,001
nano	n	.000,000,001
pico	p	.000,000,000,001

It was on this date, 100 years ago, that Einstein submitted his paper

The Field Equations of Gravitation for publication (1915). The paper included 10 equations, which made up his Theory of General Relativity. The equations lay out Einstein's theory of gravity: where it comes from and how it interacts with "spacetime." Einstein's theory viewed space and time not as two separate elements, but interwoven such that a change in one produces an effect on the other. He didn't come up with the idea of a space-time continuum — that idea came from his former professor, Hermann Minkowski — but Einstein elaborated on it.

Before General Relativity, Einstein developed his Theory of Special Relativity. He came up with it in 1905, and that theory states that the speed of light is a constant — it's the same for everybody, wherever you are in the universe — and it's also a kind of universal speed limit, meaning nothing can go faster than the speed of light. But speed is also relative based on the observer's frame of reference. When you're flying in an airplane, you don't feel a sensation of movement, but an observer standing on the ground will report that the plane is moving very quickly. Einstein realized that if space and time are on a single continuum, then as the rate of speed goes up, the rate of time must go down and vice versa. For an object moving slowly through space, time is passing quickly. Conversely, if an object is moving at a very high rate of speed, time actually slows down. We don't notice it, because we move so slowly, but the closer an object gets to attaining the speed of light, the bigger the effect is. Since Einstein's era, scientists have actually proved this theory by sending atomic clocks up in high-speed rockets. When they are brought back to Earth, the clocks on the rockets are just slightly behind their earthly counterparts.

Einstein worked on expanding and fine-tuning his Special Relativity theory for almost a decade. Once he felt confident that his equations could accurately describe gravity's effect on spacetime, he published them as *The Field Equations of Gravitation* or — as they're more familiarly known, the Theory of General Relativity. According to Einstein's theory, matter actually bends the "fabric" of spacetime. If you envision spacetime as a rubber sheet that's being held stretched out above the ground, and put a heavy object like a bowling ball in the middle of the sheet, the bowling ball will pull down the center of the sheet. And any other, lighter-weight balls that you place on the blanket will be pulled toward the bowling ball, because the bowling ball is keeping the blanket from being flat. That's where gravity comes from, and how it works. To apply the model to our solar system, the Sun is the bowling ball, and the planets are other, smaller balls rolling around the Sun. The planets are moving so fast in their orbits that they just keep circling the Sun; their speed keeps them from falling into the Sun, and gravity keeps them from flying off into space.

Einstein theorized that light curves as a result of gravity's effects on the fabric of spacetime, and that that curve should be visible during an eclipse. In 1919, astronomers traveled to an island off the coast of Africa to photograph a solar eclipse; when the photographs were analyzed, they proved that the deflection of the sunlight matched Einstein's prediction.

Good morning,8-16-2017, Beacon Report by e-mail

The past two mornings, the temperature and dew point have been the same. The wind has been 0 mph. this usually results in fog. We have no fog this morning, nor did we yesterday. I'm glad I'm not a weather forecaster. I would be lousy at it.

The beacon is 20 dB above the noise floor this morning. That's about 5 dB better than it was yesterday.

Currently, on my workbench, I am having an interesting time refurbishing and repairing K8TQK's 5760 MHz transverter. I have it working, as long as I hold some down force on the circuit board with my finger. Since I don't want to spend the rest of my days hanging off of Bob's tower, I am trying to fix it.

The rotating tower project is presently up to 65 feet with the first guy ring and set of guys installed. Work depends on the weather and availability of help.

I am also learning A software program called "Antenna Model", written by a deceased ham. There is no surviving company to support it. If any of you have experience with this program, I would appreciate any help. I use it because it is one that can handle the odd geometry of the Moxon two element yagi as modified by W6NL.

So, it's been a busy and interesting Summer to date. I hope you all had a great picnic. Some day, I plan to be there for that event.

73, Dave, K4TO

Nikola Tesla

It is the birthday (July 10-1856) of inventor Nikola Tesla, born in Smiljan, Austria-Hungary (now Croatia). He picked up an interest in inventing from his mother, who used to come up with new and helpful household appliances in her spare time.

He patented the rotating magnetic field, which is the basis for alternating-current machinery, and he also invented the Tesla induction coil, an essential component in radio technology. He sailed to America in 1884, bringing with him four cents, plans for a flying machine, and a few poems he'd written. He got a job with Thomas Edison, but the two had incompatible styles and soon parted ways. Tesla then sold his patent for alternating-current dynamos to Edison's rival, George Westinghouse. Edison waged a media campaign against Westinghouse, Tesla, and alternating current, but to no avail: the Westinghouse Corporation was selected to provide lighting at the 1893 World's Columbian Exhibition in Chicago, where Tesla demonstrated how safe alternating current was. He would hook himself up to an electric lamp and allow the current to pass through his body on its way to lighting the lamp.

Two years later, Tesla designed one of the first hydroelectric power plants in the country, at Niagara Falls; the plant was soon supplying power to the city of Buffalo, New York. In 1900, he imagined a worldwide wireless communication system that could also provide free electricity via an enormous tower. J.P. Morgan and other investors funded him at first, but then Edison - and Guglielmo Marconi - caught the investors' eye with their own radio technology. Tesla was forced to scrap his project, literally as well as figuratively: his tower was dismantled and sold for scrap to pay Tesla's debts. Tesla suffered a nervous breakdown, and eventually died, impoverished and alone, in 1943. His alternating current system is still the standard power system in use in the world today.

From Writer'as Almanac by Garrisson Keillor

CALL	FNAME	LNAME	STREET	CITY	STATE	ZIP	PHONE	List Email
WD0BW0		Brandon	301 S. Hackett Rd.	Waterloo	IA		1 319-292-8724	Brandondavide@mcksi.com
WB0FGC		Betts	P.O. Box 101	Mechanicsville	ΙΑ		1 563-432-7402	wbetts@netins.net
AB0HP	Larry	Ballew	31993 Knollwood	Macon	MO	63552	660-395-4956	
KD0IF	Le Roy		n 2002 Silverlakes Dr.	Fairfield	IA	52556		
N0LP	Nick	Hanks	29 Punyon Pine Rd	Littleton	CO	80127		ndhanks@msn.com
KD0QQM		Anderson	7778 Pine Rd	Meadowlands	MN	55765		Axel.ASDf@gmail.com
WB0SCD	Jim	Brude	31 Quayl Brace Ct.	Amelia	ОН	45102	513-753-5183	wb0scd@amsat.org
N0UU	Lawrence	Stoskopf	4408 E Country Est.Cir.	Salina	KS	67401	785-823-9498	Stoskopf@tri.net
W0VZK	William G	Buckner	P.O. Box 721	Marshall	MO		1 660-886-6396	W0VZK@ARRL.net
K1DS	Rick	Rosen	206 Kimberton Dr.	Blue Bell	PA	19422	610-270-8884	rick1ds@hotmail.com
N1GX	Adam Mac	Donald	616 Gardenia Ct	Rosamond	CA	93560		CalvinF15@SBCglobal.net
KB1SF	Keith	Baker	3560 Pine Grove Ave #488	Port Huron	MI	48060		kb1sf@amsat.org
K2EVW	Richard	Subin	427 DeHarts Store Rd.	Medows of Dan	VA	24120	540-593-2151	rsubin@swva.net
W2NHA	Chet	Latawiec	P.O. Box 610465	Port Huron	MI	48061		chetlat@hotmail.com
K2NPN	Philip	Arcuri	6621 Fox Rd.	Marcy	NY	13403		k2npn@arrl.net
W2RG	Rich	Griffiths	11 North Str.	Fairhaven	MA	02719	513-791-8023	RichGrif@one.net
W2RMA	Bill	Koch	307 Brookhaven Ln.	Pittsburg	PA	15241	412-680-0663	w2rma@arrl.net
K2VEE	Ed	Kulesa	2095 South Linda Dr.	Bellbrook	ОН	45305	937-848-2256	k2vee@arrl.net
N3BYN	Gary	Johney	1885 Poplar Ridge Rd.	Pasadena	MD	21122	410-437-4285	GJohnCY@comcast.net
W3HYM	David	Newman Jr	P.O. Box 459	Indian Head	MD	20640	301-743-6711	David@delmarlaw.com
W3IHM	Sam	Laube	434 Lefever Rd.	Mount Joy	PA	17552-930	6	
WA3ZKR	Jeffrey	Kruth	317 Briarwood Lane	Morehead	KY	40351	606-783-9944	kmec@aol.com
KP4AQI	Al	Torres	4850 Hollywreath Ct.	Dayton	ОН	45424	937-236-2534	ATorres4850@yahoo.com
AB4CR	Jack	Nyiri	6815 Fluttering Leaf Trail #301	Odenton	MD	21113	410-874-8805	JPNyiri@comcast.net
AB4CT	Patricia	Turpin	181 N. West St.	Westerville	ОН	43081		pjblack47@yahoo.com
WA4FJC	Gordon	Batey	886 Quicks Mill Rd	Staunton	VA	24401	540-248-2732	gpbatey@compuserve.com
WB4GCS	Jim	Sanford	10 Sugar Run Rd.	Eighty Four	PA	15330-255	0	WB4GCS@AMSAT.org
KE4JG	Ту	Hughes	3734 N-Woodrow St.	Arlington	VA	22207	571-382-0677	TyHughes@gmail.com
K4TG	Jerry	Shouse	1050 Hickory Hill Dr.	Lawrenceburg	KY	40342	502-839-4041	K4TG@K4TG.com
K4TO	Dave	Sublette	3925 Ironworks Rd.	Winchester	Ky	40391		k4to@arrl.net
KA4VCA	Michael	Spanos	116 Port South Lane	Alabaster	AL	35007	205-663-4457	
WP4YJ	Robert	Sambolin	2151 Orchid Dr	W Lafayette	IN	47906	765-463-6360	
W5JCS	James C.	Shideler	2215 W Eighth	Stillwater	OK	74074		sjim747@gmail.com
WA5VJB	Kent	Britain	1626 Vineyard Rd.	Grand Praire	TX	75052		WA5VJB@FLASH.NET
KQ6EF	Richard	Gill	5563 Hapschel Dr	Toledo	ОН	43623	419-754-6052	KQ6EF@pacbell.net
AA6LK	Lyle D	Kraft	4067 Heather Lane	Auburn	CA	95603		AA6LK@cwnet.com
W6PC	Mark S.	Allen	8863 Kessinger Rd.	Tremont	IL	61568		W6PC@ma52.us
KI6SZ	Don	Kessler	3872 Rexford Rd	Beavercreek	ОН	45430	937-429-8857	KI6SZ@sbcglobal.net
K7DN	Matt	Yellen	5387 St Rt 55	Urbana	ОН	43078	425-531-0863	K7DN@D-Star.US
AC7IT	Robert J	Super	2004 N Hodges Ln	Greenacres	WA	99016	509-928-1983	AC7IT@Yahoo.com
KA8ABR	Michael P.	Murphy	8300 Schoolgate Dr	Dayton	ОН	45424	937-235-1820	Murph77@fiolxhilde.com
WB8ART	Randy	Midkiff	361 Graystone Ct.	Miamisburg	ОН	45342		ranmid@gmail.com
N8ASB	Daun	Yeagley II	1353 Gurneyville	Wilmington	ОН	45177	937-382-8262	daun@yeagley.net
W8ATH	Bob	Brubaker	5930 W Britton Rd.	W. Salem	ОН	44287	216-745-2218	w8ath@bright.net
N8CBX	Jan	Servaites	3899 Wimbledon Cir.	Kettering	ОН	45420	937-299-8303	jservaites@woh.rr.com
N8DC	David	Colliau	5612 Viking Dr.	Jackson	Mi	49201		N8DC-8@comcast.net
WB8DNC		Hopster	3706 Glendale Milford Rd.	Cincinnati	ОН	45241	513-733-1590	JHops25245@aol.com
WD8DPA		Travaglini	P.O. Box 341	Northville	MI	48167		mdt2@earthlink.net
K8DZ	Steven	Koogler	8865 Barrington Way	Springboro	ОН	45066	937-266-5507	k8dz@woh.rr.com
KA8EDE	Bruce	Lundy	1156 St.Rt.380	Xenia	ОН	45385	937-376-5716	belundy@earthlink.net
N8ET	Bill	Kelsey	3521 Spring Lake Dr.	Findlay	OH	45840		Kanga@kangaus.com
KG8FE	Eric	Seebohm	918 Campbell	Hamilton	OH	45011		KD8FE@ARRL.net
K8GDT	Gerald	Tirch	1338 Medowbrook Blvd.	Brunswick	OH	44212	330-635-0679	GTirch@roadrunner.com
K8GKH	Greg	Jump	6151 Cantata Ct	Dayton	ОН	45449	937-433-0513	Greg.Jump@Gmail.com
K8HHP	Bob	Schank	35 Clarence St.	Belleville	MI	48111-275	2 734-697-7057	

CALL	FNAME	LNAME	STREET	CITY	STATE	ZIP	PHONE	List Email
WA8HNS	Mike	Gray	5029 NW St Rt 41	Washington CH	ОН	43160		MikeG41@roadrunner.com
KA8HUZ	Tom	Reed	743 Deer Run Tr.	Lebanon	OH	45036	513-933-0471	reed@go-concepts.com
ND8I	Bruce N	Raymond	10 Lackawanna Ct.	Spanish Ft.	AL	36527	937-320-1301	bruce@raymondtech.net
WB8IFM	Gerd	Schrick	4741 Harlou Dr.	Dayton	OH	45432	937-253-3993	Schrick@copper.net
W8JAQ	John	Schwall	163 Lee Dr.	Monroe	OH		513-539-7675	JSchwall@Cinci.rr.com
W8KHP	Allen		2043 Treetop Ln	Hebron	KY	41048	859-689-1202	tokens@myranch.com
		Vinegar						tokens@myranch.com
KC8KHR	Larry	Weaver	1711 E.Third St.	Dayton	OH		937-219-8250	womm@arrl not
W8MM	Michael	Valentine	10280 Alliance Rd	Cincinnati	OH	45242	513-984-8900	w8mm@arrl.net
W8NJR	Terry	Netzley	5920 Horseshoe Bend Rd.	Ludlow Falls	OH	45339	937-698-6426	w8njr@aol.com
AC8NT	James	Wilson	5093 Portland Cv	Stow	OH	44224		
N8NUY	Edward	Collins	5633 Little Sugarcreek Rd.	Dayton	OH	45440		1:1 0 :1 1
NF8O	David	Rickon	1266 Dover Dr	Medina	OH	44256	540 005 4400	drickon@zoominternet.net
WA8OGS	Joseph	Burke	9168 Brehm Rd.	Cincinnati	OH	45252	513-385-4198	GoJoe55@gmail.com
N8OIF	Edward S	Raybould	121 Oakwood Ave	Marietta	OH	45750	614-361-5582	erayboul@gmail.com
N8OU	John	Berker	Box 125/43 E.Front St.	New Holland	ОН	43145	740-495-5200	
N8QHV	Michael	Schulsinger	1002 Woodlawn Av.	Springfield	OH	45504	937-206-4240	maschulsinger@yahoo.com
N8QOD	Joseph	Muchnij	1214 Cottingwood Ct.	Bellbrook	OH	45305	937-369-4295	N8QOD@ARRL.net
KD8RHS	Brett	Scott	1318E.Dorthy Ln	Kettering	ОН	45419	937-478-6229	KD8RHS@ATT.net
WA8RJF	Anthony L	Emanuele	7156 Kory Court	Concord	ОН		440-357-1356	Temanuele@ebulent.com
W8RKO	Mike	Suhar	1108 E.Rahn Rd.	Dayton	ОН	45429-6110	937-433-4332	MSuhar@woh.rr.com
WA8RMC	Art	Towslee	438 Maplebrooke	Westerville	OH	43082	614-891 9273	Towslee1@EE.net
KD8SI	Leo	Schaaf	2648 Aragon Av N.	Kettering	ОН	45420	937-294-8425	ljschaaf@sbcglobal.net
N8SPY	Gary D	Turner	4828 Tall Oaks Dr	Dayton	ОН	45432-3226	937-313-2487C	TurnerG@gmail.com
KB8SRQ	Jon	Thuermer	1976 Burnham Ln.	Kettering	OH	45429	937-298-3199	KB8SRQ@arrl.net
K8TQK	Bob	Mathews	73 Landrum Rd.	Baimbridge	OH	45612		bmathews@horizonview.net
KB8U	Russell	Dwarshuis	1260 Creal Cres	Ann Arbor	MI		934-619-1257	kb8u_vhf@hotmail.com
K8UD	Steven S.	Coy	705 Watervliet Ave	Dayton	OH	45420	937-426-6085	k8ud@arrl.net
W8ULC	Red	Dakin	4519 N Rt 123	Franklin	OH	45005	937-704-0835	RedW8ULC@Clearwire.net
N8UR	John	Ackerman	430 Oakwood Ave.	Oakwood	OH	45409	937-545-5994	jra@febo.com
N8UVM	Robert	Peoples Jr.	8300 W Bailey Rd.	Millfield	OH	45761	740-797-4691	RPeoples@globelcooling.com
KB8VAO	Steve	Gocala	4232 Tippecanoe Rd	Youngstown	OH	44511	1 10 101 1001	KB8VAO@AMSAT.org
KC8VEB	Bruce	Lerner	734 Suntree Dr	Westerville	OH	43081	614-985-4818	bdl7431@sbcglobal.net
N8VES	Sam	Anderson	2143 Otello Ave	Dayton	OH		937-278-1029	N8VES@yahoo.com
WB8VSU	James	Bacher	5849 Terrace Park Dr	Dayton	OH		937-291-3012	j.bacher@ieee.org
N8VZW	John	Human	4080 Danern Dr.	Beavercreek	OH	45430	937-429-0234	JBHuman@outlook.com
WA8WZG	Tom	Whitted	20440 E Feldspar Ln	Black Canyon City	AZ	85324	301-423-0204	wa8wzg@wa8wzg.net
N8XA	Phil	Russo	P.O. Box 20401	Dayton	OH	45420-0401		n8xa@arrl.net
K8YMI	Bob	Halley	114 Red Bird Lane	Terrace Park	OH	45174		nova@am.net
WB8YOB		Smith		Swartz Creek	MI			
	Alan L		6303 King Arthur			48473	027 667 5000	THolmes@woh.rr.com
N8ZM	Thomas	Holmes	1055 Wilderness Bluff	Tipp City	OH	45371	937-667-5990	
KB8ZR	Mark	Tessneer	2970 Indian Ripple Rd.	Beavercreek	OH		937-426-1355	kb8zr@amsat.org
KA8ZSB	John	Hepner	9500 Huffman Rd.	Farmersville	OH		937-835-3149	HepnerJ@core.com
K9ATR	Milton	Gibson	5707 S Bridgeton Ln	South Bend	IN		574-291-0886	MeGibso@comcast.net
K9AYA	Bill	Eaton	1600 Boyle Rd.	Hamilton	OH		513-893-0933	bill@rp-l.com
K9EA	Dan	Michnay	9406 Notestine Rd	Ft Wayne	IN 	46835-9449		K9EA@arrl.net
W9FT	Ron	Henselman	1409 N.11th Ave	Melrose Park	IL.		708-345-6981	W9FT@arrl.net
K9MHZ	Bradley J	Knapp	13240 Bobwhite Ln	Carmel	IN	46033-8959		bradknapp@indy.rr.com
W9NBS	Tom	Stauffer	961 Silvercreek Dr.	Centerville	OH	45458	937-435-1870	
W9SNR	Jim	Mitzlaff	1727 N.Chestnut	Arlington Hgts	IL		847-506-0805	w9snr@outlook.com
N9SV	Dave	Moninger	3663 Hickory Ridge NE	Georgetown	IN 	47122	812-366-3912	DaveMoninger@gmail.com
W9SZ	Zack	Widup	1408 Glendale Dr.	Champaign	IL		217-384-2288	W9SZ.Zack@gmail.com
W9XA	Kermit	Carlson	1150 McKee	Batavia	IL	60510	630-879-0983	W9XA@yahoo.com
DB6NT	Michael	Kuhne	Birkenweg 15	D-95119 Naila/Hoel			9288-8232	Michael.6nt@kuhne-electronic.de
7L3DNX	Takumi	Takeno	3-7-3-504-Simosinjo	Nakahara-ku	21		81-44-751-07	naf01266@nifty.com
	Dave	Lundy	2843 LaCresta Dr.	Beavercreek	ОН	45431	937-426-1132	Lundyd43@gmail.com