

MarMtg Fri 6:30 March 23 at the
MCL Cafeteria in Kettering

2018-03-01

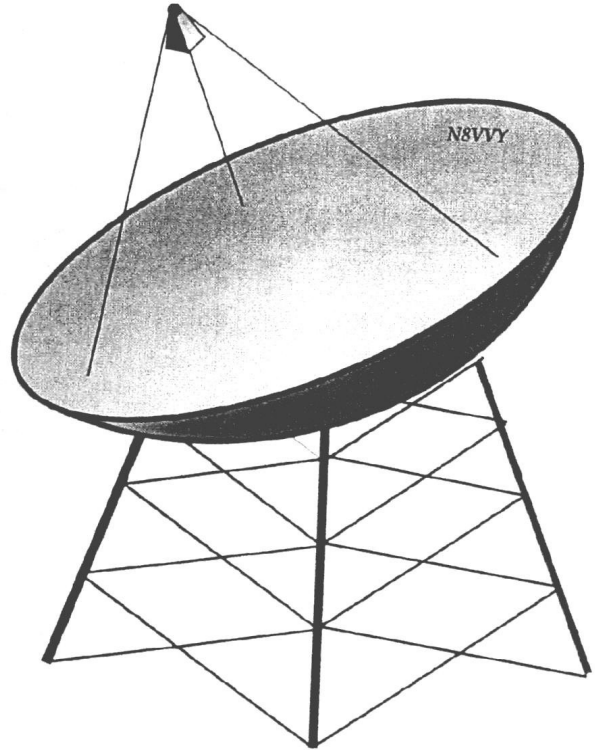
ANOMALOUS PROPAGATION

Newsletter: *The Midwest VHF/UHF
Society*

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



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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

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Coming up, Hamvention: May 18, 19, 20 2018

Later this year: Microwave Update: Oct 11,12,13 in Dayton, OH

MVUS Officials:

- Pres. Tom Holmes, N8ZM,
- Vice Pres. Mike Suhar, W8RKO
- Secretary, Jim Bacher, WB8VSU
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De N8ZM. I'm looking out of my office window on the first day of Spring, waiting for the promised snow storm to commence. (That should tell you how behind I am at getting this column written.) Every year it seems like Winter drags on a little longer, but I'm pretty sure it's just the effects of old age. You know the thought process: "I've seen this over 60 times before, do we have to go through it again?" But Spring truly is around the corner, I hope, and that means Hamvention is coming too. It IS one of my favorite rites of Spring, after all. Good friends come to town, there are new toys to buy, and maybe even some old toys will sell!

Naturally, MVUS will be represented there as well, and that's where you all can play a part. If each of us spends just an hour or two helping with the booth, it will be an easy weekend for all rather than just a few guys doing the bulk of the work. Over the years we have had the same small but reliable group take care of setup, staffing, and teardown. They do a great job but they could certainly use some help. And I'll admit that my time helping out has been limited over the years due to other responsibilities, but I promise to spend more time there this year so that the regulars can take a break and see the show. It really hasn't been fair to have them so tied down. So please sign up (email to: n8zm@mvus.org) to spend an hour or two over the course of the weekend helping out in the MVUS booth. Thanks!

In other news, on Saturday April 21st, DARA will be sponsoring the 6th annual 40-Fest, a day of talks by some very knowledgeable guys on what they have learned while homebrewing amplifiers and other devices. Last year there were over 25 hams attending; one drove all the way from Chicago! This year there is are talks on a homebrew 1296 transverter, operating on that same band, impedance matching, and a high-power HF amp. The event starts at 9:00 at DARA's clubhouse, 6619 Bellefontaine Road, Huber Heights, OH. It is free, by the way.

Our good friend John Ackermann, N8UR, has built an interesting setup using several of those nifty little RTL-SDR dongles and the well-known CWSkimmer software to monitor beacons on 6, 2, and 432. It has been installed at our contest site northeast of Urbana, OH, and has produced some surprising results given it uses simple loop antennas for each band. I'm hoping that John has written up something for this issue of Anom Prop, but if not, look for it next month. I don't want to give away any more of what he has done or observed here; it's his project, but I will say that it has some cool implications for monitoring VHF/UHF propagation.

And with that I will remind you that the March MVUS meeting will be on the 23rd at 6:30 (5:30 for the late lunch crowd, you know who you are!) at the MCL Cafeteria. See YOU there!

de Tom, N8ZM.

Stephen Hawking SK 3-14-2018 age 76

One of Hawking's former students at Cambridge, theoretical physicist Raphael Bousso, told *Nature* that his teacher was a brilliant physicist who also excelled at communicating science to the public. "These are two distinct skills. Stephen excelled at both."

Bousso, now at the University of California at Berkeley, recalls how he had to learn to shake off his awe and relax around Hawking. "Stephen was a joyful and lighthearted person, not to be burdened by excessively respectful and convoluted interactions," he says.

(SA)

This and That 3-18

One Billion cars were manufactured in the course of the 20th century, and there are currently over 700 million cars moving around the world's roads.

[John Urry "The system of Auto mobility"]

Small Wonder...that in American cities, close to half of all urban space is dedicated to the automobile; in L.A. the figure reaches 2/3.

[Pressed for Time, Wajcman]

Wind power. Windmill experts say a 10 mph wind generates 8 times more power than a 5 mph wind.

[L.M. Boyd]

Dynamite. Alfred Nobel finally invented dynamite, that's true, but he blew up his house, his laboratory and his brother Emil before he got it under control.

[L.M. Boyd]

Little League Baseball...is a good thing because it keeps the parents off the streets and the kids out of the house.

[Yogi Berra]

Gloves. The only reason I need these gloves is 'cause of my hands.

[Yogi Berra]

Statistics. 44 million people in the U. S. cannot read or write. The average American spends 99 hours a year reading, but 1,460 hours watching TV. Only 11 % read a newspaper.

[Year 2001]

Intelligence. The difference between genius and stupidity is that genius has its limits.

[Albert Einstein]

Economics. The only function of economic forecasting is to make astrology look respectable.

[J. K. Galbraith]

Contact. The surest sign that intelligent life exists elsewhere in the universe is that it has never tried to contact us.

[Bill Watterson]

News Stories. Remember the 4 W's and the H.- The who, what, where, and how for every news story.

[Marianne Stanley, Dayton city Paper]!

The End of Night: Global Illumination Has Increased Worldwide

The spread of lit areas could threaten animal ecology and human health

- By [Joshua Sokol](#) on January 1, 2018



Credit: NASA Earth Observatory images by Joshua Stevens, using Suomi NPP VIIRS data from Miguel Román, NASA's Goddard Space Flight Center

Artificial light is often seen as a sign of progress: the march of civilization shines a light in the dark; it takes back the night; it illuminates. But a chorus of scientists and advocates argues that unnaturally bright nights are bad not just for astronomers but also for nocturnal animals and even for human health.

Now research shows the night is getting even brighter. From 2012 to 2016 the earth's artificially lit area expanded by an estimated 2.2 percent a year (*map*), according to a study published last November in *Science Advances*. Even that increase may understate the problem, however. The measurement excludes light from most of the energy-efficient LED lamps that have been replacing sodium-vapor technology in cities all over the world, says lead study author Christopher Kyba, a postdoctoral researcher at the German Research Center for Geosciences in Potsdam.

The new data came from a NASA satellite instrument called the Visible Infrared Imaging Radiometer Suite (VIIRS). It can measure long wavelengths of light, such as those produced by traditional yellow-and-orange sodium-vapor street lamps. But VIIRS cannot see the short-wavelength blue light produced by white LEDs. This light has been shown to disrupt human sleep cycles and nocturnal animals' behavior.

Is US loosing it? S.A. 3-14-2018



Credit: [NASA and ESA](#)

The proposed Federal budget suggests that the United States may turn its back on the basic science approach to developing technological and economic advances that has served us so well for so long. For the first time in fifty years, we would not pursue the top-ranked project of the National Academy of Sciences, ceding the leading roles in science that the U.S. has discovered.

Throughout the 20th century, the United States led the scientific community, inventing more than its share of the science and technology on which the world depends. Basic science-driven research reveals the laws of Nature while enabling amazing technologies that allow us to do seemingly magical things: see inside the human body, navigate in a pea-soup fog, and solve problems long considered unsolvable. When applied research hits a wall, basic, curiosity-driven science provides a new insight that leapfrogs the barrier.

Along the way we discovered the composition of our Universe (were we surprised!), and we have come much closer to learning who or what we share it with. Time and time again, the quest to simply understand our world, our universe, ourselves through basic research has been our best North star.

Who needs DST?

By Gerd.

I must own I am much in the dark about light. I am not satisfied with the doctrine that supposes particles or matter called light are continually driven off from the sun's surface with a swiftness so prodigious. Benjamin Franklin.

This is what Franklin had to say about light in general. However, he also was observing the changes in the length of the days during various times of the year and that time shifting could provide extra working hours during the summer, if time was adjusted accordingly.

To my knowledge, Savings Time was first introduced during WW1 and was also extensively used (sometimes shifting 2 hours), during WW2. The major complaints about this came and still come to-day from the farmers, who had to deal with "habits" of animals. We know now that nature has built into all organisms a clock that helps them to accommodate the variations in daylight hours year round! Personally, I never had much of a problem getting out of bed, when the alarm clock went off. Since retirement, however, I have only used our alarm clock on the rare occasion when we plan to catch an airplane early in the morning. Otherwise, we can get along quite well without the alarm!

I wake up now, on my own, quite regularly, including in dark, cloudy weather at the "right" time. So I almost feel like the chickens the farmer talks about. Thing is, I cannot turn this off, so "sleeping in" what some people specialize in, like on a Saturday, is kind of hard for me!

So I am with the farmers for abolishing that crazy Daylight saving Time! My first indication is that I am not alone in this; all the people of my generation (the senior citizen) agree with me. About the younger people, I am not so sure. What I have noticed though: the morning newspaper is coming later and at irregular times than usual, in particular the Sunday paper with a lot to read is very late. (Delivery personnel must be sleeping in)

The main reason for all this, is, of course, to provide light for working. Now, may I educate the people in charge that we are living in the age of the LED and light is no longer a problem. We went from no light to gaslight to electric light, and from the incandescent bulbs to the fluorescent ones and we are now entering the LED-age. There is no problem with artificial light, use it if you need it! However there is a big problem with too much light. See article on page 5.

The Automobile Then and Now!

“Model T Ford:...It was quite a contraption of cranks and levers that had to be adjusted frequently and non of which responded all that quickly. I remember dad cranking to start it up. It had pedals on the floor and a gas lever on the steering wheel. We never went near the car unless Dad was there, it was a very special thing. It could go up to 20 miles an hour, at a time when a good horse could hit 4 to 5 miles per hour.”

Adaline Sorace in Addie of the Flint Hills

At about that time (1920ties) electric cars did exist and they were a favorite with old ladies. Now having driven an “Electric” for a few months, I have to admit, the simplicity of driving an “Electric” is hard to beat. There are only 2 pedals, one, large square, easy to find and next to it the usual “gas” pedal. BTW, nothing is going to happen, unless you have one foot firmly on the brake. Next you have three buttons, that light up when they are activated and labeled P (for park), R (for Reverse) and D (for Drive). That’s it, man, sri woman! When you park the car, there is also a handbrake, which I routinely now use, it is easy.

One other button, especially in cold weather, is the “seat heater” I understand a lot of cars, these days have those. Well I find, it is usually, even in freezing weather, enough to keep you warm to drive, of course, it is very important to save electricity which you need for driving and would be cut down by your using it to heat the cabin, which is possible. In fact, the car also has AC, I have to wait for summer to see how hot it gets inside the car!

By Gerd.

The Last Model T Ford.

May 31, 1927, the last Ford Model T rolled off the assembly line. It was the first affordable automobile, due in part to the assembly line process developed by Henry Ford. It had 2.9-liter, 20-horsepower engine and could travel at speeds up to 45 miles per hour. It had a 10-gallon fuel tank and could run on kerosene, petrol, or ethanol, but it couldn't drive uphill if the tank was low, because there was no fuel pump; people got around this design flaw by driving up hills in reverse. Ford believed that "the man who will use his skill and constructive imagination to see how much he can give for a dollar, instead of how little he can give for a dollar, is bound to succeed." The Model T cost \$850 in 1909, and as efficiency in production increased, the price dropped. By 1927, you could get a Model T for \$290. "I will build a car for the great multitude," said Ford. "It will be large enough for the family, but small enough for the individual to run and care for. It will be constructed of the best materials, by the best men to be hired, after the simplest designs that modern engineering can devise. But it will be low in price that no man making a good salary will be unable to own one - and enjoy with his family the blessing of hours of pleasure in God's great open spaces."

CALL FOR PAPERS

John Ackermann N8UR
via mvus-list <mvus-list@febo.com>

Microwave Update 2018

Dayton, Ohio, October 11 – 14, 2018
Holiday Inn, Fairborn, Ohio
www.microwaveupdate.org

Microwave Update (MUD) is an international conference dedicated to microwave equipment design, construction, and operation. It is focused on, but not limited to, amateur radio on the microwave bands. The Midwest VHF/UHF Society is pleased to host this year's event. The conference will be held at the Holiday Inn, 2800 Presidential Drive, Fairborn, Ohio 45324.

Call for Presentations and Papers: The program committee is calling for papers and presentations on the technical and operational aspects of microwave amateur radio communications. Tell us about your latest project, design or operating adventures. Please e-mail your proposals, questions, and submissions to John Ackermann, N8UR, at jra@febo.com. Don't wait until the beginning of September to let us know what you're planning!

Presentations selected for the technical program may be given in person or by proxy. Please send an abstract and expected duration no later than August 25, 2018 so that we can determine and announce the program agenda the following week. Ideally, send your draft presentation by the same date. We encourage presenters to submit a companion paper for publication in the proceedings book. This paper would ideally be text based and expand on the presentation slides, but a simple copy of the slides is also okay. Either way, this material must be received no later than September 1, 2018 to be included in the book. Additional material (presentation slides, schematics, source code, more text, background info, etc.) to be included on the proceedings CD must arrive no later than September 25, 2018. All conference attendees will receive a copy of the book and CD.

Full details, including suggested topics, paper guidelines, schedule, and hotel information can be found on the MUD website: www.microwaveupdate.org.

***** RF Technical Group (RFTG) Lecture Series *****

**6th Annual, Forty Fest 2018- an informal symposium
to help spread interest & pass on the knowledge of Amateur Radio Homebrewing**

Agenda for 21 April 2018 SATURDAY:

- 1) 9:30am - 10:30 am Ray, K8KGM Lecture - 1296 Transverter**
- 2) 10:30am - 12:00pm Dale, W4OP Lecture -1296 Operations**
- 3) 1:00pm - 2:00pm Lunch**
- 4) 1:00pm - 2:00pm Larry, K4RFE Lecture - On Impedance Matching**
- 5) (2:00pm - 3:30pm) Jan, N8CBX Lecture - Latest High Pwr. Ampl. Project**

Handouts of slides will be available at the conference.

Impact we hope to make - You will learn about a wide range of technical areas in homebrewing. Here is an opportunity to get together with others to pass along your knowledge to the new homebrewers.

We encourage everyone to lecture. The more the merrier..... **73 Jan N8CBX**

Sponsored by The Dayton Amateur Radio Association. Thanks!

Toaster Oven Reflow Kit

I have been looking into converting a toaster oven to a reflow oven. In my search for a design I ran across a web site where someone has put together a kit for the conversion. The web site is very detailed on the design and construction. Unlike many that have done something similar this one includes an extra heating element and added insulation. This was done so the oven could provide the recommended temperature profile suggested for surface mount components. The kit does not include the oven but it does suggest obtaining the one used in the design. The suggested oven is the Black and Decker T01303SB which costs \$30 from Amazon. Other ovens in that wattage could be used. I decided to obtain the suggested oven so the instructions would match the unit I have. The kit supplies all the parts including the extra heating element, insulation, relays, and controller. The controller is designed specifically for the this purpose. I have not built the kit yet but it is on the bench pending completing other projects currently underway. Once I built the kit and run a few boards through I will provide another assessment.

The website: <http://www.whizoo.com/>

Mike, W8RKO