

# Zero Beat



Alliance Amateur Radio Club

Volume XXVIII, no 6

<http://www.w8lky.org>

June, 2014

Serving the Tri-County area since 1986

## Field Day 2014 To Be Held In Sebring

It's that time again. Field Day is fast approaching. FD Chairman Rick, KC8SUI tells us that this years site has been chosen. We will be returning to the Sebring Camp Grounds.

Field Day is always on the 4<sup>th</sup> full weekend of June. This years dates are June 28/29.

The Sebring Camp Grounds are located just off of Johnson Rd, in Sebring. The drive is just North of Lake Park Blvd, at the corner of Texas Ave, and Johnson rd.

Rick is looking for the following:

- Donations of food, and supplies
- Anyone who is willing to be in charge of setting up a station
- Anyone willing to loan antennas, and equipment to this year's event.

Rick can be reached at 330-851-3106. No word has been received about times for setup, or dinner.

Make sure to come to the next club meeting, and join in the discussion as we iron out the fine details for this years Field Day exercise.

Right: The club tower is up, and ready for action!

Below: Carl, K7CE, and Tomas, KC8ZEH discuss Antennas



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## AARC Meetings

The Alliance Amateur Radio Club meets on the Second Wednesday of each month, at the Alliance Community Hospital. Check the meeting announcement on page 1, for times, and program information. Talk-in on either of the club repeaters. Meetings begin at 7:30 PM. Visitors are always welcome.

## Find Us Online:

**Web:** [www.w8lky.org](http://www.w8lky.org)

**E-mail:** [W8lky@w8lky.org](mailto:W8lky@w8lky.org)



## AARC Repeaters

### 2 Meters

145.370 (-) W8LKY  
-W8LKY Echolink node

### 440 MHz

442.350 (+) W8LKY  
(the 440 machine is currently off the air)

## Nets

Thursday is our "net night," with the following nets held, beginning at 8 PM

### Ten Meters

8:00PM 28.100 MHz (CW)  
8:30PM 28.400 MHz (SSB)

### Two Meters

9:00 PM 145.37 MHz W8LKY (-)

### Homeland security Net

(Meets on the last Tuesday of each month  
8:00 PM 147.51 Simplex

# W8LKY.org Stats

Here's this month's W8LKY report. Our numbers were down a bit in May. We had 670 visits, compared to 745 the month before.

Page views also dipped to 7240, compared to 7597 in March.

As always, we can always use some proofreaders. I depend on visitors who notice when stuff is amiss, and let myself or Ben know.

So remember that I'm working for you. Keep those comments and suggestions coming! 73, de John, KD8MQ



## AARC News Ticker

- Dale, NX8J writes to tells us a possible change in policy at the State BMV. Dale stopped by to renew his Amateur Radio tags, and was refused since he neglected to bring a copy of his FCC license. On returning, he did not immediately volunteer his FCC license, but kept it in his pocket, to see if it would be requested. It Was requested, and presented. No big deal, but Dale (and this editor) finds it interesting that the presentation of the FCC license is not required for mail, or online renewals. So, a word to the wise; bring that FCC license with you to the registrar if you are renewing your tags in person. Thank you Dale, for notifying us of this.
- Steve, KD8SPF - (I have to apologize to Steve. He sent me this for the last issue of the Zero Beat, and I forgot to add it)  
Not much here. Lots of spring outside work to catch up on. I purchased a new 2 meter rig. I installed a Kenwood 281A in my truck, needed an updated rig with tones. Easy radio to operate, great bargain on sale. Picked up also an Elk 2meter 70 cm beam, nice portable antenna, we broke it in on the Stark County VHF QSO party and was very pleased as a portable station on the hill at Easton and Paris AVE. Lots of fun. We can hear SO50 with it easily with the HT, but you need 6 hands to log a call. We have been trying to work the W1AW stations, I have 127 as this writing. 160, 80, 40 I do good, the higher bands I do poorly unless they are west coast area so I am looking into an antenna solution for the closer states, something with a high take off angle possibly from what I read. Perhaps a wire horizontal loop antenna would serve the situation. Its on the to do list which seems to be ever growing, not enough hours in the day anymore. KD8SPF Steve

## Paper Chase by Joe, W8KNO

If you went to Dayton and attended the "Contesting Forum", you heard the MC ask the audience who had operated from each of the 40 CQ Zones. I was impressed by the number of zones that had been activated by the group.

After returning home, I wondered how many zones I had been active in. In addition to W8KNO, I had previously held K2UEL which I had used aboard the USS Hammerberg (DE 1015) and the USS Gearing (DD710). In addition, I had operated at other clubs.

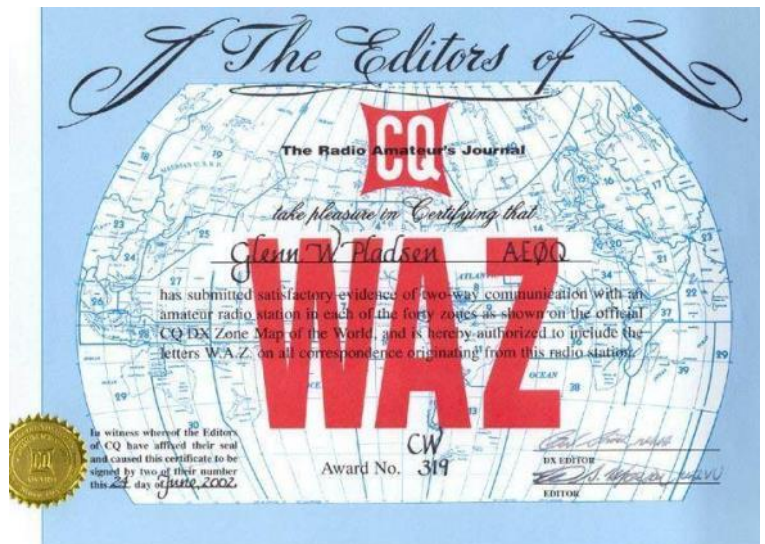
My first communication occurred before I was licensed I was not boot-legging. I needed to communicate with the Long Beach Naval Ship Yard from atop the after mast of the USS Toledo, CA-133, while aligning the AN/SPQ-2 antenna. The top of the mast was 112 ft. above the water line. This all occurred in zone 3.

I obtained my first call K2UEL in 1959 and for the next nine years I operated fixed, portable, mobile and maritime mobile and as a guest operator at W3ADO and NSS. This was all in zone 5 with the exception of mobile contacts in zone 4 while visiting Cleveland.

After being assigned aboard ship, I operated from the Hammerberg in zones 5,8,10 and 12. From the Gearing, I operated in zones 14 and 33.

Since coming to Ohio and having to get a new call sign, W8KNO; I have operated fixed, portable, mobile in zone 4 and as a guest operator at W6RO the Queen Mary in zone 3. Field days have been operated with the Portage County Amateur Radio Service, The Warren Amateur Radio Association, Portage Amateur Radio Club and the Hiawatha Valley Amateur Radio Club, KC0LXM, of Red Wing, Minnesota.

After getting confirmation of all 40 zones, you may obtain a certificate by submitting the necessary forms to CQ. Complete rules can be found at: <http://tinyurl.com/mbx7m6e>



If you would like a CQ Zone map, go to:

<http://cqww.com/images/wazmap1.gif>

I'll listening for you,

Joe - W8KNO

## Field Day History

(This came from the June issue of the Wave Bender; newsletter of the Western Reserve ARC, Jane, K8JAA editor. I found it to be interesting reading. After all, we can't figure out where we're going, if we don't know where we've been. - John, KD8MQ)

Field Day will soon be here, June 28 and 29. I thought I would write a bit about how Field Day began. In 1933, the June 1933 QST announced that the second Saturday in June, for a period of 27 hours, starting at 4:00 p.m. local time, those hams would go into the "field" and set up portable stations. W1BDI F.E. Handy said: "The real object of this contest is to test 'portables' wherever they may be available.~. If successful, we want to make it an annual affair."

The scoring of that first contest was each QSO with fixed stations will count 1 point, contacts with other portables count 2 points and DX contacts count 3 points. Multiply QSO points by the total number of ARRL sections, plus countries worked. September 1933 QST announced the winner of the 1st Annual Field Day was W4PAW. They made 62 QSOs, and had 28 sections for a total of 1876 points.

**1934** Field Day #2 is announced.

**1936** Field Day was so popular that a second Field Day was held August 22-23 of that year. The highest QSO total for June was 143 and the highest QSO total for August was 136.

**1937** Field day #5 is announced for June 19-20. The FD message bonus was added. The winning station for this FD had 204 QSO's at a rate of 7.5 QSO's/hr.

**1938** Field Day period goes from 4:00 pm Saturday Local time to 6:00 p.m. Sunday.

**1939** The first rule to include all station apparatus must fall within a 100 ft. radius (excluding antennas).

**1940** The 100' rule is changed to 500'. Home stations are allowed to work FD.

**1941** The ARRL inadvertently forces a nationwide start time by notifying the FCC of the Field day period and the FCC communication 73-D references a single start time for all ham stations for Field Day from 4:00 p.m. EST June 7 to 6:00 p.m. EST June 8.

**1942-1945** All Ham activity ceases. A little thing called WWII.

**1946** Field day returns and adds a VHF only category

**1948** 11 meters (now the CB band) is added for a Field Day Band. FD is shortened to 24 hrs. Battery and Emergency power categories are added.

**1949** A Mobile category added to FD.

**1950** The modern day FD classes are established. The circle is increased to 1000'

**1951** To encourage home emergency power, a home emergency power class is added Class D while home stations off power mains are class E.

**1957** Simultaneous starts return, starts 4:00 p.m. EST and ends 4:00 p.m. PST the next day. Anyone can operate 24 of the 27 operating period. 10,000th ham participates.

**1963** ARRL rules that a FD site can only use one call sign.

## Field Day History - cont.

- 1968** Setup within the 27 hr. period is mandatory and the start time is moved to 1900z. All home stations are moved to Class D.
- 1969** The setup rule is hugely unpopular so ARRL changes the rule so that if you wait to set up you can operate the whole 27 hrs. , otherwise you can only operate 24 hrs.
- 1970** A free Novice station is allowed. Starting time is moved to 1800z.
- 1972** Battery results are listed separately.
- 1973** Repeater rule is waived for satellite contacts and a 50 point sat bonus is included for the first time.
- 1974** A 100 point bonus is added for making contacts solely by natural power. 15 minutes rule for band changes is instituted.
- 1975** The Explosion of SSB leads the ARRL to institute a 2X multiplier for CW contacts.
- 1976** 10,000 QSO mark is broken by W1VV/1
- 1977** The natural power bonus disappears and techs are now allowed to operate the Novice station. The 2X CW rule becomes permanent.
- 1980** RST is replaced with category and class for the exchange. Setup time is changed again; nothing can be set up before the 24 hr. period. Natural power comes back as a 100 point bonus. Sat and FD message bonuses increase to 100 points.
- 1981** Due to the popularity of packet radio, a 100 point bonus is instituted for one packet QSO and the repeater rules are waived for QSO's through a digipeater. The Yankee Clipper Contest Club W2RQ turns in an impressive 11,201 QSO total for Field Day.
- 1984** Power multiplier is changed from 200 watts to anything less than 150 watts.
- 1993** Due to the influx of Technicians, a 100 point bonus is added for making 10 VHF/UHF contacts and a free VHF/UHF station is allowed class A and B.
- 1994** The modern FD record is set by K6CAB 15A by getting 3450 QRP QSO's for a total score of 30,150.
- 1998** Free packet station and bonus are eliminated, but RTTY/PSK31 is added as a 3rd FD mode. The 100 point bonus for VHF/UHF stations is deleted.

So that is the history of Field Day. We've come a long way Baby! Credit: December 1999 QST. I would continue, but you get the idea, this is our Month to shine with the changing times. I.e. Digital, the use of computers, smaller and better new products to help us contact each other. Wonderful new antennas are smaller and lighter so we can go mobile.

**All in all Ham Radio is just getting better and better.**

*Stolen from WCARC's June issue of the INTERMOD, researched by Joe Tom K6JOE.*

## The AARC Wayback Machine

Here again are some of the highlights from the last 20 years of the Zero Beat. you can read them at <http://www.w8lky.org>.

### **June, 1989, (editors KB8GCE, & KB8GCF)**

- This was the first Zero Beat from the desk of Dennis (KB8GCF), & Janice (KB8GCE) Barber. Dennis came to the US from England, after completing 13 years in the Royal Navy, and was a chef by trade. Janice was a housewife. If memory serves, they had one son, Damien.
- Patty (KE8KH) was beginning her fourth year as treasurer, and was also enrolled in the police academy.
- The winning raffle tickets had been drawn. After expenses, the club had made a profit of \$399.00. Thanks were offered to all who sold tickets.
- The estate sale that the club was holding had so far netted \$751.37.
- Elections had been held. The new officers were:
  - Pres—Dave, KC3CL
  - Vice-Pres—Gary, KB8GAB
  - Secretary—Gladys, KB8GIA
  - Treasurer—Patty, KE8KH
- The ARES group had been asked to provide communications for the Aerobatic competition at Berlin Aeropark, in June.

### **June, 1994, (editor WX8G)**

- Plans were being made for Field Day, 1994. The site was again going to be at Marlinton Middle School.
- WX8G's editorial told of a unlicensed individual who took to the local repeater, trying to find a testing opportunity. No word on how it turned out.
- We ran a very interesting biography on The Old Man, Hiram Percy Maxim, better known as W1AW.

### **There was no June, 1999 newsletter**

### **June, 2004, (editor KE8VE)**

- We reprinted an inspired idea from N2ZD proposing HPL (Hamming Over Power Lines). Of course, it was all done tongue in cheek.
- The figure @ was added to the Morse code set. It was formed by the letters AC.
- Joe Philips, K8QOE lost his wager with Michigan's SM, Dale Williams, WA8EFK on the outcome of the Ohio State - Michigan game and had to serve as Dale's slave, pack mule and chauffeur at the Dayton Hamvention that year.

### **June, 2009, (editor KD8MQ)**

- A Pre-Field Day Picnic was planned for the June meeting.
- On a vote at the May meeting, it was agreed to hold Field Day 2009 at the usual site at Marlinton Middle School.
- Ham volunteers were being solicited to help out with the 2009 Pro Football Hall Of Fame Parade.
- A convoy of vehicles from the Military Vehicle Preservation Association was set to pass through the area. In Mid-June.

## Rambling

by John, KD8MQ



The **Dayton Hamvention**<sup>®</sup> is behind us for another year. This year, I hope, marks a milestone as the final time that I go to the Hamvention for only one day. This year, I had a list of places, and people to see, and still didn't get it all done. I limped back to the bus around 2:30 with a pair of sore knees, and happiness that I had remembered to bring my Ibuprofen!

I say this each & every year, but next year I will go to Dayton for the full three days, and finally attend Contest U.

So, what about Dayton? Let's see, It hailed! That's a first since I've been attending. I picked up a new power supply for the shack. I also found some odds & ends at W3FF's booth. I didn't get to meet bud, but did have a brief chat with Steve, WG0AT. Don't remember him? Do a search on his Callsign on Youtube.com.

The **Butler Hamfest** was fun. I opted at the last moment to cancel my camping trip, and instead drive over on Sunday AM. The good side was that it gave me lots of time to work on the garage/repeater shack.

The plans to move the 440 repeater to my QTH are still on track. As of this writing, the garage is 99% finished. Next comes a coat of finish to the wallboard, and we can start moving stuff back in. I still have a tower to put up, but we are making progress.

While at Butler, I got to meet John, WA8KIW in person. John is the editor for the Monday Morning Memo. The Memo is the SW Ohio equivalent of the Monday Morning Message. John has been doing the Memo since last year, and is where I got the idea for the Message.

The **Monday Morning Message** continues to grow in popularity. Practically every week, I get a nice comment from a reader. That is the best compliment, by the way, is knowing that your work is being read.

I spent a couple hours last weekend building a Buddistick portable antenna. So far, it's working well. You'll be hearing more from it this weekend, as we put it on the air from John, N8PLA's cabin in PA.

**KD8MQ/P** If anyone needs Hancock Cty, WV, or Jefferson Cty, PA, get in touch with me. I'll be in both places this month.

**Field Day** is coming up. I hope that you will all give Rick, KC8SUI all the support, and respect that you've given me over the years. One way you can show him your respect will be to come to the next club meeting, on Wednesday, June 11th. Right now, there are still some details to be worked out, and we need your input.

**My Field Day** Plans are to have fun not being in charge of anything. I probably will be available for setup, and teardown of the tower, and will operate some. But, I also plan to spend some time at PCARS, and perhaps other sites. After being the go-to person year after year, I decided this is the year to relax, and do my own thing.

The first of two **Special Event stations** this year will be coming up in July. You'll hear more about this at the club meeting. On July 12th, we will be setting up at the Taylorcraft fly-in. We have reserved the Callsign W8T for use that weekend. It should go pretty smoothly.

The **LOTW presentation** that I promised last month didn't happen. It was purely my fault. As I sat down, and started to work on the program, I realized I was unable to do it justice in the short time I had allotted myself to it. Hopefully, I'll do better in September.

That looks like about it for this months column. See you at the June club meeting?



## Man Found In Hara Arena, Days After Hamvention Ends

By [K5KVN](#), on the scene

**DAYTON, Ohio** — A Vermont amateur radio operator was found today in a remote hallway within the Hara Arena complex, three days after the end of Hamvention. Officials at a news conference identified the man as Gerry Mapleshire and described him as being found “disoriented, hungry, and with three days of beard growth.”

After medical technicians on the scene revived his blood sugar by providing him a leftover \$6 Hamvention Hotdog, Mapleshire recalled what happened.

“It was shoulder-to-shoulder on the arena floor. I remember a nice-looking lady handing me a free Kenwood cloth bag full of brochures and a lapel pin, then the crowd shifted and I was pushed into the MFJ booth,” said Mapleshire.



He says that’s when his “survival instincts” kicked in.

“I got on my hands and knees and crawled out of the MFJ booth. I got to the arena floor ramp but the crowd was so thick. I somehow ended up in a hall by the loading docks, without my Kenwood bag,” he said.

He wandered through dark hallways trying to find his way out of the vast complex for three days before a maintenance worker found him. “I called for help on 146.520 but no one answered,” said Mapleshire.

Hamvention information deputy Ned Doubtman investigated why his radio call went unanswered. “Turns out he was transmitting WITHOUT a PL tone. Everyone here blocks out QRM by using a PL tone on transmit and receive. It’s no wonder he wasn’t heard,” said Doubtman.

Mapleshire says he’s still recovering from the traumatic experience, but would like to get in touch with someone from Kenwood so he can get his lapel pin.

### [hamhijinks.com](#)

## Ohio Antenna Law Challenge May Be Over

05/28/2014 - In a surprise move, the Ohio Sixth District Court of Appeals has dismissed an appeal from the Village of Swanton, Ohio, in an Amateur Radio antenna zoning case. The ARRL had announced plans to file a "friend of the court" or amicus curiae brief on behalf of ARRL Life Member Gary Wodtke, WW8N, who has been trying since 2009 to erect a 60 foot antenna support structure on his 0.2 acre residential lot. It now appears that he will be able to do so. The Village of Swanton, Ohio, has established a fixed antenna height of 20 feet above the residential roofline, and it turned down Wodtke's antenna variance application for the taller structure. On appeal, Wodtke in January won a final judgment in his favor in the Fulton County Common Pleas Court.

The court ruled that federal and state law preempted Swanton's antenna ordinance. The Appeals Court ruling on April 3 was based on the fact that the trial court decision the Village could have appealed was issued on August 20, 2013, while the judgment that the Village attempted to appeal was issued on January 21, 2014. Since the August 20 trial court decision was a final order, the Village was required to file its appeal within 30 days, and it never did so, thus losing its right to appeal. The ruling means that the August 20 trial court decision stands, and Wodtke wins the right to erect the tower for which he applied.

Read the entire article

<http://www.arrl.org/news/view/ohio-antenna-law-challenge-may-be-over>

*Thanks to the Wave Bender; newsletter of the Western Reserve ARC, Jane, K8JAA editor.*

## Swap & Shop

K8OMO has the following estate items available:

- A3S Cushcraft HF Beam with 40 meter add on kit , new caps on traps \$400.00
- Cushcraft 6 Meter 5 element beam \$100.00
- Tower commercial grade Rhone 55G, including:
  - 4 straight sections, top section has thrust bearing plate and bearing
  - 16' mast pipe
  - Second thrust bearing plate and bearing above rotor plate
  - all hardware included
  - \$700.00

Contact Don, K8OMO 145.370 repeater or call (330) 685-7613

## New D-Star Repeater online in Akron

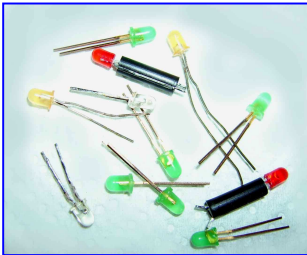
There's a new D-star repeater on the air in Akron. Run by the newly formed Akron Digital Amateur Radio Club" (ADARC), the KD8CYF repeater operates on 443.5875+ .

Here are the settings: RPT1 = KD8YCF B, RPT2 = KD8YCF G,

Set mode to DV (Digital Voice). The FM mode is not supported on this repeater.

*(From the June, 2014 Radiogram, newsletter of PCARS - Parky, KB8UUZ editor)*

# A Bright Dim-View of LED's



LED's (light emitting diodes) were becoming available in the 1970's at decreasing prices. The light output was very low, in the order of 1 to 7 mcd (milli-candela). Maximum allowed current of 20 mA (milliamperes) was needed for reasonable light output. For battery/portable operation this was significant power drain but better than the available 40 mA incandescent lamp for some applications. A common pilot lamp for decades, #47 pilot lamp is 6.3 Volts at 150 mA, now available in LED version around 1500 mcd, 6 VAC at 15 mA. Saving the old bayonet base, you can make your own version.



**Candela is a measurement of light output. Milli-Candela (mcd) is 1/1000 of a Candela**

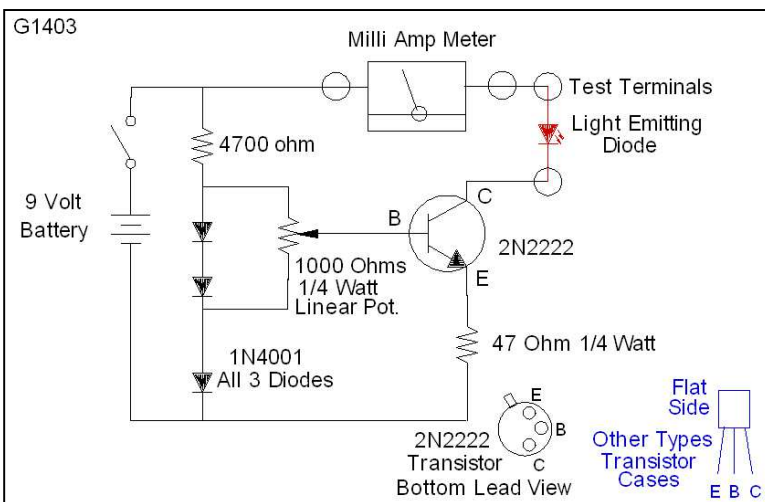
There are bargain prices on LED's (new old stock) from the 1970's to the current surplus, generally without specifications. LED's are now available with medium to very high intensities.

**H**ow much brightness is needed? Somewhere around 20 to 80 mcd is a reasonable design for panel indicators. An estimate of 20 mcd is sufficient for a small room panel indicator and 80 mcd for a large industrial room control panel with average lighting. Recent indicators found on modern equipment are often too bright and can be objectionable in an average room setting, such as a 500 to 1500 mcd blue LED on an internet modem, blinking once per second. A proper series resistor value should have been installed to limit the brightness to a reasonable value.

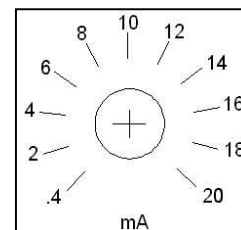


**In other words, panel indicators should not compete with a lighthouse beacon**

Testing and comparing LED's can be done with a low cost circuit (less than \$5.00). The following circuit will vary the current which is proportional to the light output. After the desired brightness is determined, the proper series resistor can be calculated.



The calibrated dial for the variable resistor is shown below. Resize as necessary to fit your application. Lowest output is 0.4 mA



### Circuit Description:

The circuit is a 0.4 to 20 milliampere variable current regulator. The range is determined by the transistor emitter resistor and the number of diodes in series. The bottom 1N4001 diode sets the minimum current. The 2 Upper diodes determine the maximum output. The diodes are used as voltage regulators. The variable resistor varies the voltage to the transistor from Minimum (0.6 volts) to Maximum (1.8 volts) with a source battery voltage of 8 to 9 VDC.

The milliampere meter can be any analog or digital meter capable of measuring DC current from 0.1 to 25 milliamperes with reasonable accuracy around 2 percent.

### Parts substitution:

The transistor 2N2222 can be 2N3904 , ECG123, NTE123, or similar.  
Variable Resistor can be a 1000 ohm linear with a ¼ watt or ½ watt rating.  
Diodes can be 1N4001 to 1N4007 series.



The light output is proportional to the current.

A 20 mcd LED at 20 mA is similar in light output of a 200 mcd LED at only 2 mA. Therefore high brightness LED's can be run at very low currents for battery powered indicators and reasonable light output.

## How to calculate an LED series resistor once the current and voltage is known

Determine the **Source Voltage** that will be used in your design  
Measure the **LED Voltage** (voltage across the LED) using the above circuit  
Measure the **LED Current** in milliamperes using the above circuit

The **Resistor Voltage** is equal to the **Source Voltage** minus the **LED Voltage**  
The **LED Current** in Amperes is equal to (LED Current in milliamperes) divided by 1000

Example: **Resistor Voltage** of 7 volts and **LED Current** of 20 milliamperes (0.02 amperes)  
Resistor in Ohms is equal to 7 divided by 0.02 therefore 350 ohms.

The **Power Rating** of the resistor is important and can be found by:  
**Resistor Voltage** times the **Resistor Voltage** and dividing that number by the **LED Current**  
Using the above values: 7 times 7 = 49. 49 divided by 350 equals 0.14 Watts. A 0.25 watt resistor (1/4 watt) and is a safe value to use.

The resistor wattage should be at least 1.3 to 1.5 times the calculated power.

This project should teach fundamentals, ohms law, kit building, and working with LEDs.

**73, DE MIKE WA8MKH**

## June 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																																																															
<i>1</i>	<i>2</i>	<p><i>3</i></p> <p>7:00 PM Stark Cty ARES Net (147.12) 9:00 PM Northern Columbiana Cty Training Net (147.255)</p> <p style="text-align: center;"><b>Bob, K8ETV BD</b> <b>Gary, KB8GAB BD</b></p>	<p><i>4</i></p> <div style="border: 1px solid black; padding: 5px; text-align: center;">6:30 PM CFARC Fox Hunt</div>	<p><i>5</i></p> <p>8:00 PM AARC CW (28.100 MHz) 8:30 PM AARC SSB(28.400 MHz) 9:00 PM AARC VHF (145.37(-))</p>	<i>6</i>	<i>7</i>																																																																																															
<i>8</i>	<p><i>9</i></p> <p style="text-align: center;"><b>Dan, WV8W BD</b></p>	<p><i>10</i></p> <p>7:00 PM Stark Cty ARES Net (147.12) 9:00 PM Northern Columbiana Cty Training Net (147.255)</p> <p style="text-align: center;"><b>Joe, KD8RFX BD</b></p>	<p><i>11</i></p> <p>7:30 PM AllianceARC Meeting</p>	<p><i>12</i></p> <p>8:00 PM AARC CW (28.100 MHz) 8:30 PM AARC SSB(28.400 MHz) 9:00 PM AARC VHF (145.37(-))</p> <p style="text-align: center;"><b>George, W8AKU BD</b></p>	<p><i>13</i></p> <p>8:00 PM Massillon Net (147.18)</p>	<i>14</i>																																																																																															
<i>15</i>	<i>16</i>	<p><i>17</i></p> <p>7:00 PM Stark Cty ARES Net (147.12) 9:00 PM Northern Columbiana Cty Training Net (147.255)</p> <p style="text-align: center;"><b>Dianna Ashburn BD</b></p>	<p><i>18</i></p> <div style="border: 1px solid black; padding: 5px; text-align: center;">6:30 PM CFARC Fox Hunt</div>	<p><i>19</i></p> <p>8:00 PM AARC CW (28.100 MHz) 8:30 PM AARC SSB(28.400 MHz) 9:00 PM AARC VHF (145.37(-))</p> <p style="text-align: center;"><b>Jerry, KG8RN BD</b></p>	<p><i>20</i></p> <p>8:00 PM Massillon Net (147.18)</p>	<i>21</i>																																																																																															
<i>22</i>	<i>23</i>	<p><i>24</i></p> <p>7:00 PM Stark Cty ARES Net (147.12) 9:00 PM Northern Columbiana Cty Training Net (147.255)</p>	<p><i>25</i></p> <div style="border: 1px solid black; padding: 5px; text-align: center;">7:00 PM AARC Foxhunt</div> <p style="text-align: center;"><b>Dana, KC8LKB BD</b></p>	<p><i>26</i></p> <p>8:00 PM AARC CW (28.100 MHz) 8:30 PM AARC SSB(28.400 MHz) 9:00 PM AARC VHF (145.37(-))</p>	<p><i>27</i></p> <p>8:00 PM Massillon Net (147.18)</p>	<i>28</i> ARRL Field Day																																																																																															
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Alliance Amateur Radio Club  
P.O. Box 3344  
Alliance, OH 44601

## This Months Meeting

will be on Wednesday,

June 11<sup>th</sup> in the Café Confer-  
ence Room at:

**Alliance  
Community hospital**  
200 E. State St  
Alliance, OH.

Our meeting will begin at  
7:30PM

**No program this month to  
better accommodate  
Field Day Planning**

Feel free to Join us for dinner  
beforehand at

**Frank's  
Family Restaurant**  
480 E. State St, Alliance

## Newsletter Information

The Zero Beat is a  
publication of the  
**Alliance Amateur Radio  
Club**  
**P.O. Box 3344**  
**Alliance, OH 44601**

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[kd8mq1@gmail.com](mailto:kd8mq1@gmail.com)

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