K9TRC –News:

The reason you have warble in your audio?

Ham News for Tipton County

You are invited to attend the April meeting of the Tipton Indiana Amateur Radio Club which meets the second Saturday of each month . The next meeting is Saturday, April 13 , 2024, at 8:30 am, at the Jim Dandy Restaurant on West Jefferson Street in Tipton. Except this month the club is having a Fox hunt. Everyone meets as usual at Jim Dandy at about 9 AM. The frequency chosen will be passed out. The person who holds the fox will go hide it and turn it on. The hunt begins. After the fox is found a debriefing will be held at the center in the Tipton Park.

Executive Board meets the first Friday of each month Also at Jim Dandy at 8:30 AM. Unless otherwise noted.

Officers: Louie Wolford (k9qcb), President, Paul Kennedy (kd9iqh) Vice President, Larry Crowder, Treasurer(k9lwc), Ron Adamson (WA9YJZ) Secretary, John Ankrom (kg9ja) Trustee

Standard Stuff:

The beginning of each net starts with an attendance of sorts of the local RACES/ARES membership.Have you wondered about RACES/ ARES and how to learn more? The ARRL has these courses if you are interested:

EC-001: Introduction to Emergency Communication
EC-016: Public Service and Emergency Communications Management for Radio Amateurs
PR-101: Public Relations 101 for Radio Amateurs

Look into them, they can be helpful.

If you think it is an emergency call 911. Don't wait, don't think it will pass. It's better to look a little silly than to become dead.

Notes from the Editor:

Oh! Oh!: From April A VINTGE Transistor schematic

Indiana Section ARES® Nets

The Indiana Section ARES® HF net is held on 7.272 +/- during the summer months, every Sunday at 5 PM EDT.

Net Manager: Jim Moehring, KB9WWM. Email: servo300@aol.com

- ***Indiana ARES® HF Net Script***
- ***Indiana Section ARES® HF Net Log***

The Indiana ARES® HF Digital Net is held every Wednesday at 8:30 PM Eastern Time except the second Wednesday of the month on or about 3.583 MHz using Olivia 8/500.

Net Manager: Matthew Becdol, W9SOX

ARE YOU UPGRADING YOUR LICENSE THIS YEAR?

The Tipton County Indiana Amateur Radio Club is an exempt organization under Section 501(c) (3) of the Internal Revenue Code.

K9TRC is pleased to be affiliated with the American Radio Relay League (ARRL)

EXAM SESSION

04/16/2024 | ANDERSON IN 46016-2238

Sponsor: Anderson Repeater Club
Location: Madison County EMA EOC
Time: 7:00 PM (Walk-ins allowed)
Learn More

- EXAM SESSION

04/20/2024 | NOBLESVILLE IN 46060-1624

Sponsor: Central Indiana ARA/ HCRACES
Location: Sheriff's Training Room
Time: 10:30 AM (No Walk-ins / Register or Call ahead)
Learn More

- EXAM SESSION

05/21/2024 | ANDERSON IN 46016-2238

Sponsor: Anderson Repeater Club
Location: Madison County EMA EOC
Time: 7:00 PM (Walk-ins allowed)
Learn More

- EXAM SESSION

06/18/2024 | ANDERSON IN 46016-2238

Sponsor: Anderson Repeater Club
Location: Madison County EMA EOC
Time: 7:00 PM (Walk-ins allowed)
Learn More

- EXAM SESSION

07/16/2024 | ANDERSON IN 46016-2238

Sponsor: Anderson Repeater Club
Location: Madison County EMA EOC
Time: 7:00 PM (Walk-ins allowed)
Learn More

- EXAM SESSION

07/27/2024 | NOBLESVILLE IN 46060-1624

Sponsor: Central Indiana ARA/ HCRACES
Location: Sheriff's Training Room
Time: 10:30 AM (No Walk-ins / Register or Call ahead)
Learn More

- HAMFEST/CONVENTION
- 05/04/2024 - NORTH CENTRAL INDIANA HAMFEST
- **Location:** Marion, IN
  Type: ARRL Hamfest
  Sponsor: Cass, Grant, Howard, Miami Counties
  Website: http://www.NCIhamfest.com

- EXAM SESSION

08/20/2024 | ANDERSON IN 46016-2238

Sponsor: Anderson Repeater Club
Location: Madison County EMA EOC
Time: 7:00 PM (Walk-ins allowed)
Learn More

- EXAM SESSION

09/17/2024 | ANDERSON IN 46016-2238

The Tipton County Indiana Amateur Radio Club is an exempt organization under Section 501(c) (3) of the Internal Revenue Code.

Sponsor: Anderson Repeater Club
Location: Madison County EMA EOC
Time: 7:00 PM (Walk-ins allowed)
Learn More

- EXAM SESSION

  10/15/2024 | ANDERSON IN 46016-2238
  Sponsor: Anderson Repeater Club
  Location: Madison County EMA EOC
  Time: 7:00 PM (Walk-ins allowed)
  Learn More
- EXAM SESSION

  10/19/2024 | NOBLESVILLE IN 46060-1624
  Sponsor: Central Indiana ARA/ HCRACES
  Location: Sheriff's Training Room
  Time: 10:30 AM (No Walk-ins / Register or Call ahead)
  Learn More
- EXAM SESSION

  11/19/2024 | ANDERSON IN 46016-2238
  Sponsor: Anderson Repeater Club
  Location: Madison County EMA EOC
  Time: 7:00 PM (Walk-ins allowed)
  Learn More
- EXAM SESSION

  12/17/2024 | ANDERSON IN 46016-2238
  Sponsor: Anderson Repeater Club
  Location: Madison County EMA EOC
  Time: 7:00 PM (Walk-ins allowed)
  Learn More

Updaters Note: HamExam.org Amateur Radio Practice Exams

At: HamExam.org: Free Amateur Radio Practice Tests

Or for Technician Class: Ham Radio Technician Class Practice Test (updated 2020) (mometrix.com)

And General: Ham Radio General Class Practice Test (updated 2020) (mometrix.com)

OR: ON THE ARRL WEB SITE

Amateur Radio Websites that are supposed to be "Handy" From: H. Ward Silver: Part of the Ham Radio for Dummies Cheat Sheet.

ARRL- Many useful regulatory, educational, operating, and technical items and links

AC6V and DX Zone – General-interest websites with many links on all phases of Ham Radio

QRZ.com - Callsign lookup service and general-interest ham radio portal

eHam.net – News, articles, equipment swap and shop, product reviews, and mailing lists

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Radiowave Propagation Center - Real-Time information on propagation and solar data

Space Weather Prediction Center - - Real-Time information on space weather and radio communications

TAPR (Information on Digital modes) - Information on Digital modes and software-defined radio (SDR)

AMSAT - Main site for information on amateur satellites

WA7BNM Contest Calendar - Contest calendar and log due dates

YOTA (Youngsters on the Air) – World-wide group for student and young adult hams, based in Europe

DXMAPS.com - Collection of real time maps showing worldwide activity on any amateur band

DXSummit – Worldwide DX spotting network

You may or may not know the ARRL works with several agencies in the public service area. Many of these groups accept volunteers. If you have some free time and would like to be more active in the community here is a partial list of agencies that may need volunteer help.

- **American Red Cross+**
- **Association of Public-Safety Communications Officials-International (APCO-International)+**
- **Boy Scouts of America+**
- **Citizen Corps (Department of Homeland Security)+**
- **Civil Air Patrol (CAP)+**
- **Federal Emergency Management Agency (FEMA)+**
- **National Volunteer Organizations Active in Disaster (NVOAD)+**
- **REACT International Inc.+**
- **Salvation Army & SATERN+**
- **SKYWARN (National Weather Service)+**
- **Society of Broadcast Engineers (SBE)+**
- **United States Power Squadrons+**
- **Quarter Century Wireless Association, Inc.**

Copied from the ARRL website

10 Handy HAM Radio Websites:

ARRL, AC6V, DX Zone, QRZ.com, eHam.com, Radio wave Propagation Center, Space Weather Prediction Center, TAPR(Tuscon Amateur Packet Radio), AMSAT, WA7BNM Contest Calendar, YOTA (Youngsters On The Air)

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New Stuff:

The North Central Indiana Hamfest will be held Saturday May 4, 2024 from 9AM to 2 PM (est) at Harts's Celebration Center, 3031 E 450 N, Marion, IN, talk in 146.790-(141.3).
This information taken from the Kokomo Amateur Radio Club Website.

9 Natural Wasp Killers To Try This Spring

- March 30, 2023

From warm weather to outdoor activities, there are many benefits to the spring and summer seasons. Unfortunately, this time of year also comes with a major downside—wasps. Around April, queen wasps begin hunting for places to build nests. Sheltered areas, such as garages, sheds and window frames, are often targeted.

If you've noticed a wasp nest around your home, chances are you want to get rid of it. Keep reading to discover our top nine natural wasp killers.

Should I Get Rid of Wasps?

Before we go over natural methods for eliminating wasps, it's important to determine whether they're worth killing in the first place. Generally, if the nest is not bothering you, there's no need to get rid of it. As the weather gets colder, most male wasps will die, while the queen wasp will leave to hibernate. Prior to leaving, wasps seal their nests so that they cannot be reused.

When a nest is dangerously close to your home, however, you don't want to wait until autumn. Wasps are territorial creatures – if they sense you're a threat, they may sting you. Not only are stings painful, but they can also cause symptoms like redness, swelling and hives. In severe cases, wasp stings can trigger life-threatening allergic reactions. In the United States, approximately 2 million people have insect venom allergies.

Once you've decided it's worth killing a wasp's nest, the next step is finding safe, effective ways to do so. That's where natural wasp killers come in.

9 Natural Wasp Killers

If you've considered getting rid of wasps before, you might have searched online for chemical solutions. However, unless you're a professional, it's generally not a good idea to use chemical products. Some chemicals may irritate or damage the eyes and skin, while others are unsafe to breathe in. Thus, you should stick with natural solutions instead. Here are nine of our favorite natural wasp killers.

1. Lemon Extract

Lemon extract is more than just an excellent addition to desserts — it's also an effective method for getting rid of wasps. Just take a few tablespoons of extract, mix them with a cup of water and pour the solution into a spray bottle. Not only will this mixture kill wasps, but the scent will also prevent any from returning.

2. Essential oils

Humans may enjoy the scent of essential oils, but wasps can't stand them. Here are a few essential oils that can kill wasps:

- Lemongrass
- Clove
- Geranium

For the best results, mix these three oils together and add some dish soap. Then, spray the wasp's nest, as well as any vulnerable areas around your home. If you have young children or pets at home, keep in mind that some essential oils can be toxic for them.

3. Dish Soap

If you're looking for a convenient, natural wasp killer, dish soap fits the bill. Not only is it effective, but you also probably already own some. To make this solution, simply fill a spray bottle about halfway with water, then add a quarter cup of dish soap. The soapy water will make wasps suffocate.

4. Plants

Are wasps infiltrating your yard? If so, it might be time to exercise your green thumb. Plenty of plants emit aromas that wasps don't like. Some of the most popular wasp-repelling plants include:

- Thyme
- Peppermint
- Eucalyptus

- Citronella
- Wormwood
- Spearmint

While these plants won't necessarily kill wasps, they can repel them and discourage wasps from returning next year.

5. Chili Peppers

If you're a fan of spicy food, you might have some hot chili peppers in your kitchen. You can turn this ingredient into a wasp-killing spray by chopping up a few peppers, boiling them in water and then pouring the mixture into a spray bottle. Be careful not to spray your eyes or skin, as peppers can cause irritation.

6. Talcum Powder

Believe it or not, talcum powder can drive away and even kill wasps. Many talcum powders have small amounts of boric acid, which is toxic to the insects. All you have to do is sprinkle the powder around the nest. If just one wasp encounters it and brings it back into the nest, it can affect the whole colony.

7. Powdered Cinnamon

Don't have any talcum powder on-hand? You can use powdered cinnamon instead. Eugenol, a key active ingredient in cinnamon, is known to repel wasps. Just sprinkle some of the spice around the nest, and you're good to go. However, it's worth noting this won't kill the wasps; it will just keep them

from hanging out in that area. You'll also have to apply this regularly to be the most effective.

8. Vinegar and Soap

If you're nervous about spraying a wasp's nest, you can make a trap instead. All you'll need are the following ingredients:

- 2 cups of white or apple cider vinegar
- 2 cups of sugar
- 1 cup of warm water
- 1/4 cup of dish soap

Mix the apple cider vinegar, sugar and water in a bowl. Once the sugar is dissolved, add in the dish soap. Then, pour the mixture into a bottle with a narrow opening and leave it near the nest. If the nest is elevated, you may need to hang the bottle from a string. It's also helpful to make multiple traps.

So, how exactly does the trap work? First, it lures in wasps with the sugar. When the wasps enter the bottle, the mixture covers their wings and prevents them from flying out. It's also difficult for them to escape due to the narrow opening. Over time, the wasps will suffocate.

9. Jam In a Jar

Another way to make a wasp trap is by putting jam in a glass jar. First, create a small hole in the jar's lid. It should be just big enough for wasps to enter. Then, smear some jam on the lid and add a bit of honey or sugar water inside

the jar. The sugary substances will attract wasps — once they enter, however, they will struggle to find their way out.

Preventative Measures

From soap to cinnamon, there are plenty of safe, effective solutions for getting rid of wasps. While some of these methods may help deter wasps from coming back next spring, many of them are geared toward eliminating existing colonies. Fortunately, here are some preventative measures you can take to deter these pesky insects from returning.

- **Get rid of food scraps:** If you have food scraps around your home, you're bound to attract some wasps. In addition to sealing food and cleaning crumbs, it's advisable to seal your trash cans.
- **Seal cracks and crevices:** Wasps love to dig into cracks and holes. To prevent them from getting comfortable in your home, you should seal any noticeable cracks in areas like garages or sheds.
- **Invest in a decoy nest:** Wasps don't want to build nests near other colonies. Thus, if a queen wasp notices a nest is already in the area, she won't stop there. Decoy nests can help fool wasps.

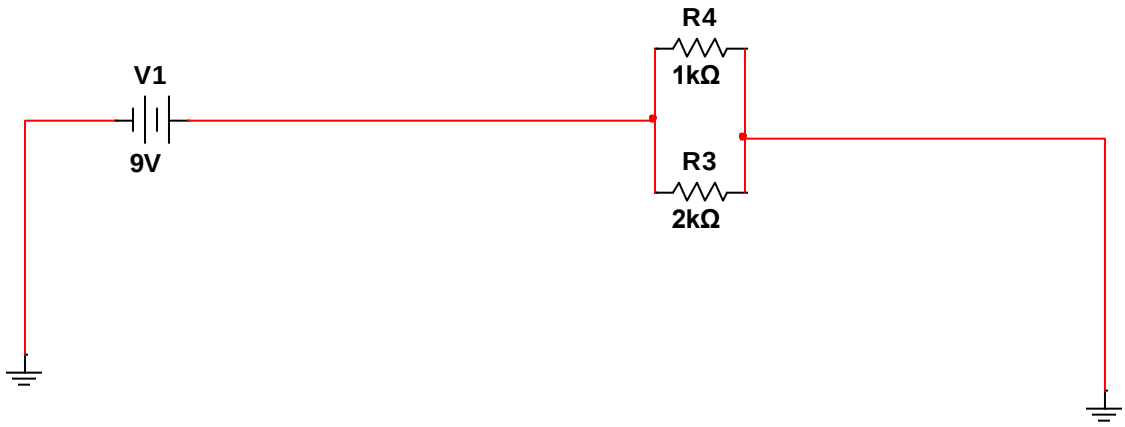
Although preventative measures are a great way to stop infestations, they won't guarantee that a colony won't settle by your home.

Give Wasps The Boot This Summer

While none of us like spending our summer with wasps, many people aren't familiar with the different ways to repel or kill these pests. We've provided

nine natural ways to keep wasps from crashing your BBQs this summer. However, if you have a recurring wasp problem or if the infestation is severe, you should contact a local pest control expert. Courtesy of the Internet.

Parallel Circuit:



Keep in mind Kirchhoff's Voltage Law where the sum of the potential rises and drops around a closed loop is zero.

Voltage divider rule: Vx = Rx * V/ Rt.

So, the voltage across any resistor (or combination of series resistors) is equal to the value of that resistor multiplied by the potential difference across the series circuit and divided by the total resistance of the circuit.

Voltage is always the same across parallel resistors.

Conductance: The total conductance of a parallel circuit is equal to the sum of the conductance's of the branches. Conductance is the reciprocal of resistance.

Conductance "G" = 1 / R, $G_t = G_1 + G_2 + G_3 \ldots .G_n$

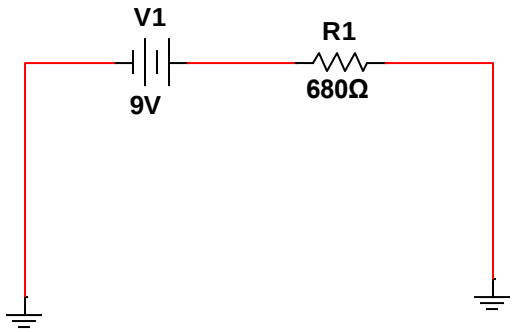
And Gt = G1 + G2 + G3 + …Gn or 1/Rt = 1/R1 + 1/R2 + 1/R3 + … 1/Rn

And the above circuit has a 9-volt power supply and two resistors and they are parallel to each other. So how do we simplify this one?

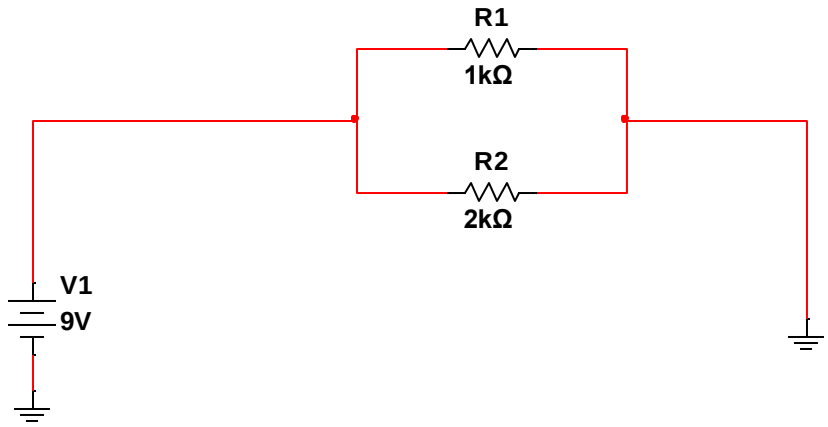
We can use Conductance above: G = 1 / R + 1 / R. Two resistors, so 1/ Rt = 1/1000 Ω + 1 / 2000 Ω = .0015 then 1 / .0015 = 666.666 Ω. Or we could do

(R1 * R2) / R1 + R2 = 1000 * 2000 / 3000 = 2,000,000 / 3000 = 666.66 Ω. So the two parallel resistors can be replaced by one 667 Ω resistor if that is a standard resistor value. You may have to go up to something else… 700 Ω or maybe 800 Ω.

Series circuit:



This is the same circuit as above only now it is a series circuit. I changed it. So, I have a 680 Ω resistor as I could not find a 666.666 Ω resistor and I didn't look hard. Anyway, we know voltage… 9 volts and now resistance 680 Ω. What is the current? Well E = I * R, Ohms Law and we solve for I, so, E / R = I. That is 9 / 680 =.0013 Amps. We are not finished… Back at the beginning there were two resistors in parallel, now the voltage across all the resistors in a parallel circuit are equal. The voltage does not go up or down in a parallel circuit but current may. So how many amps go through the 1 k resistor and the same question for the 2k resistor.



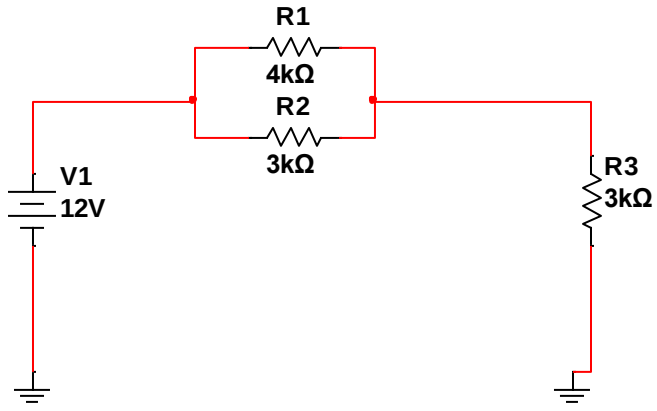
We have 1.3 mA and in a series circuit current is constant. So, the current through both resistors is 1.3 mA. Then the voltage is? We have rule… called the voltage divider rule and it looks like this: $v_{r2} = v_T (R_1 / R_1 + R_2)$ and in this case we have

$V_{R2} = 9 (1000/ 1000 + 2000) = 3$ volts

Now just to be sure let's figure $V_{R1} = 9 (2000/ 1000 + 2000) = 6$ volts.

Now 3 volts + 6 volts is equal to the battery voltage. So, we did good.

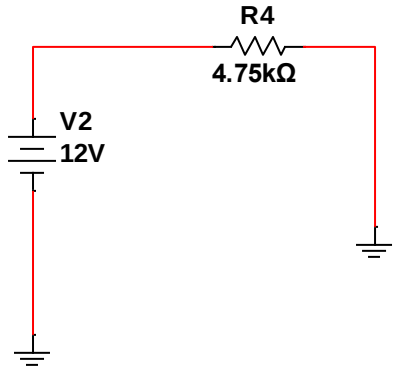
Oh! Oh! I know, I know … a series parallel circuit…



So how do we do this? Start with the parallel resistors. Turn them both into one series resistor. Rt = (R1* R2) / (R1 + R2).

Rt = (4000 * 3000) / (4000 + 3000) = 1714.3 Ω. This calculation provides one resistor at 1714.3 and we still have the other 3000 Ω resistor but series resistors

add together. Our equivalent series resistor is 4714.3Ω. Are we done yet… nope. We need to know the current in this circuit. So, E = I * R, 12 volts = I * 4750 Ω. Do some magic and 12 volts / 4750 Ω = 0.0025 Amps.



4750 is the closest value I could find. Are we there yet? Nope! What is the voltage drop across R1 on the page above. Well, we have what is called the voltage divider rule and it goes like this. V1 = Vs (R1 / R1 + R2). In English, the voltage V1 at resistor R1 is calculated (=) the Voltage source (Vs) multiplied by (R1 / R1 + R2). So, V1 = 12 volts (4000 Ω / 3000 Ω + 4000 Ω). 12 * 4000 / 7000 = 6.86 volts across R1. So, what about R2…. V2 = 12 volts (3000 Ω / 7000 Ω) which is 5.14 volts. Now, voltage in equals voltage out, 6.86 volts + 5.14 volts equals 12 volts which is where we started. OK?

Next month more circuits?

Lastly:

“To earn a lot of money you must know something. If you wait for someone to teach you everything, you are in line with everyone else. Amateur Radio is a way to self-learn calling on “Elmer’s” when needed. This increases your skills, technical knowledge and abilities. You are in charge and you are ahead of the competition.”

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