

WAVES

Chattanooga Amateur Radio Club P.O. Box 23121 Chattanooga TN 37422 <http://w4am.org>

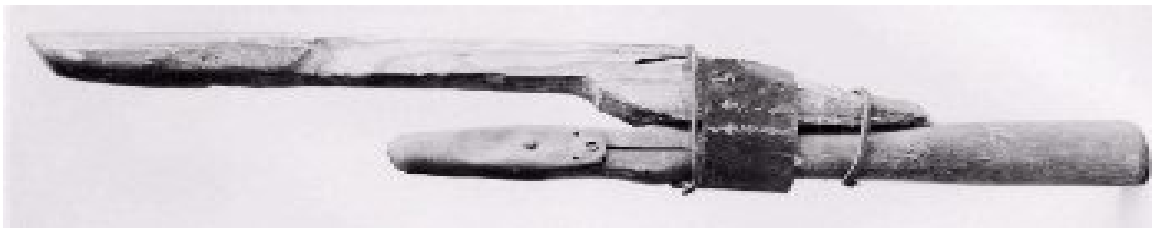
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THE WOUFF HONG

From the 1969 ARRL "Radio Amateur's Operating Manual"

Every amateur should know and tremble at the history and origins of this fearsome instrument for punishment of amateurs who cultivate bad operating habits and who nourish and culture their meaner instincts on the air...

This is the Wouff Hong.



It was invented - or at any rate, discovered - by "The Old Man" himself, just as amateurs were getting back on the air after World War One. "The Old Man" (who later turned out to be Hiram Percy Maxim, W1AW, co-founder and first president of ARRL) first heard the Wouff Hong described amid the howls and garble of QRM as he tuned across a band filled with signals which exemplified all the rotten operating practices then available to amateurs, considering the state of the art as they knew it. As amateur technology and ingenuity have advanced, we have discovered new and improved techniques of rotten operating, but we're ahead of our story.

As The Old Man heard it, the Wouff Hong was being used on some hapless offender so effectively that he investigated. After further effort, "T.O.M." was able to locate and identify a Wouff Hong. He wrote a number of QST articles about contemporary rotten operating practices and the use of the Wouff Hong to discipline the offenders.

Early in 1919, "The Old Man" wrote in QST: "I am sending you a specimen of a real live Wouff Hong which came to light out here . . . Keep it in the editorial sanctum where you can lay hands on it quickly in an emergency." The "specimen of a real live Wouff Hong" was presented to a meeting of the ARRL Board and QST reported later that "each face noticeably blanched when the awful Wouff Hong was . . . laid upon the table." The Board voted that the Wouff Hong be framed and hung in the office of the Secretary of the League and there it remains to this day, a sobering influence on every visitor to League Headquarters who has ever swooshed a carrier across a crowded band.

“The Old Man” never prescribed the exact manner in which the Wouff Hong was to be used, but amateurs need only a little imagination to surmise how painful punishments were inflicted on those who stoop to liddish behavior on the air.



Tuesday Night 8 PM 146.610



CARC Sunday night net 9 PM 146.790



Thursday night 8 PM 146.790

Minutes of February 4, 2010 CARC Meeting

Meeting called to order by President Mark Rose (KAØYDC) at 6:05 pm.

Mark turned the meeting over to Vice-President Rick Curtis (W4ATX).

Rick spoke of and introduced Tim Troutman of the National Weather Service who presented the Skywarn Training program.

Broke for coffee and doughnuts about 45 minutes into the program.

The presentation concluded at approximately 8:05 pm.

Only thirty-one people signed the attendance sheet but there was a full house.

Mark called the regular business meeting to order at 8:20 pm.

Roland Witt (KJ4REP) presented his membership application to the club.

Roland is now our newest member.

Treasurer Jim Knight (KD4EHN) pointed out that only about 30% of the 2009 membership have so far opted to pay their 2010 dues.

Bill Dobbs (K4TSF) mentioned that our chili supper will be Thursday, March 4 and a few volunteers are still needed to bring food items. If you can help call Bill at 622-5102.

It was noted that Rufus Elliott (KE4IDB) is a silent key.

Mark noted that the disaster assessment needs of the local American Red Cross will be presented by John Hitchens at our March meeting.

Mark lead a discussion on the following:

- Drilling holes and running coax to the radio room.

- Equipment tables.

- Paint.

- Tower installation.

- Generators.

- Work day will be Saturday, February 20 at 10:00 am.

Meeting adjourned at 9:00 pm.

Respectively submitted,
Bill Dobbs, K4TSF

Chapter 3: Inductor

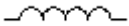
Let me be very brief here. The main purpose of this tutorial is to explain what an inductor is and how it behaves in an electronic circuit.

The definition of inductance goes like this:

"Inductance is the ability of a coil to establish (or induce) a voltage within itself to oppose changes in current through its windings".

That means when varying current flows through a coil, a voltage is induced within the coil in a direction so as to oppose the change of current through it.

The circuit symbol of an inductor is:



and like a resistor, it can be connected either way in a circuit, with the exception of mutually coupled coils that have to be connected in a particular way.

The unit of inductance:

The unit of inductance is 'henry' denoted by H. Usually, in electronics smaller values of H are used like mH (millihenry).

Applications of inductors:

One of the major applications come in from "mutually coupled" coils where the magnetic field established in one coil, 'cuts' through the other coil and hence induces a voltage in the other coil. This is called 'mutual inductance'. Such coils are widely used in transformers.

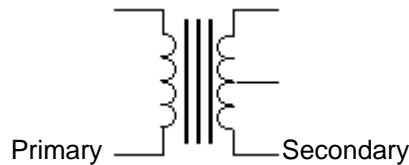
Transformers:

They are used in electronics to step-up or step-down voltages using mutually coupled coils. When a varying voltage (like AC) is applied to one of the coils of the transformer (called the **Primary** winding), a voltage is 'induced' in the other coil due to mutual inductance. The second coil in which the voltage is induced is called the **Secondary** winding.

If by applying a higher voltage to the primary, a lower voltage is obtained at the secondary, then the transformer is called a "**Step-Down**" transformer. If a lower voltage produces a higher voltage then its called a **Step-Up** transformer.

If the transformer produces a higher voltage from a lower or vice-versa, then isn't it defying the law of energy conservation? Well, not really. We are till now looking only at the voltages and not currents. Remember that energy (per time period) is the product of voltage AND current. What really happens in a transformer is, if it produces a higher voltage from a lower, then the output current will be lower than the input, thus maintaining the total energy constant.

The circuit symbol of a transformer is:



The "extra" wire in the middle of secondary is called the "center tap" which may or may not be present in all the transformers.

Usually the voltages between the centre tap and the other two taps of the secondary are equal.

Transformers are specified by the following:

1. Primary and secondary voltages.
2. Current rating.

For example, a 230V / 12-0-12V and 1A transformer means, the primary voltage is 230V and secondary voltages are 12V,0V,12V of the 3 tappings and can supply a maximum of 1A (this is the root-mean-square,rms value) . If you want to 12V from the transformer, then you can use the center tap and either of the other 2 end terminals. If you use the two extreme ends, then the output will be 24V. If the transformer's secondary is of 9-0V, it means the transformer has a secondary of 2 tappings and the voltage measured between the 2 tappings is 9V.

Just remember that the output of a transformer is AC and cannot be used for normal circuits and have to be converted to DC using "diodes".

Where are these transformers used?

In your T.V , computer, tape recorder,VCR and just about every electronic gadget that operates on mains. This is because if the mains voltage is 230V(or 110V), the gadgets need much lower voltages than that, say like 6V , 9V etc. These lower voltages are obtained by using a "step-down" transformer.

What about step-up transformers? They are used in inverters, which provide AC power from a battery.

Edwin Howard Armstrong

In a basement laboratory at Columbia University, 22-year-old Edwin Howard Armstrong built the first regenerative circuit, which would make long-distance radio communication feasible. For the next 21 years, Armstrong strived to discover a method of broadcasting that would be static-free and carry the full frequency range of sound that is perceptible to the human ear. In 1933, at the age of 43, he achieved his goals with the invention of wideband FM radio, and the rest of his life was spent in heartbreaking litigation with former friends over ownership of the invention that revolutionized daily life. Despite a late-Victorian culture that encouraged innovation, many turn-of-the-century inventors faced similar legal struggles in their efforts to receive official recognition and compensation for their inventions.



CALLING ALL ROOKIES -- AND NON-ROOKIES, TOO! GET ON THE AIR FOR THE ARRL ROOKIE ROUNDUP

The ARRL Rookie Roundup is designed to help newly licensed amateurs build their operating skills on HF. It is a contest specifically for those new to Amateur Radio, similar to the ARRL Novice Roundup that ran from 1952 until 1995. The Rookie Roundup brings the fun and Elmering of the old Novice Roundup into the 21st century. Three Rookie Roundups will be held each calendar year: SSB in April, RTTY in August and CW in December.

The Rookie Roundup will be scored 100 percent in real time through the www.getscores.org scoring system. There are three ways to participate: by using your favorite logging software with the real time scoring support, by downloading a simple logging program from the www.getscores.org Web site or by logging your contacts directly into a www.getscores.org Web page. No separate logs are required -- it all happens online in real time and final scores will be available online within hours of the end of the contest! More information is available on all of these options at www.getscores.org. Of course, you can get on the air and make contacts without logging them, but you won't have as much fun!

Who Can Participate?

Any ham licensed for 3 years or less qualifies as a Rookie. If you were licensed in 2008, 2009 or 2010, you can compete in the 2010 Rookie Roundup. Non-Rookies may only work Rookies, while Rookies may work everybody. A major part of the success of this contest will be non-Rookies getting on the air and working the Rookies, just as in the Novice Roundup. Just like in the Novice Roundups of years past (when Novices could work anyone and non-Novices could only work Novices), Rookies may work anyone, be they Rookie or non-Rookie; however, non-Rookies are limited to only working Rookies.

Entry Categories

Single Operator Rookie, limited to a maximum of 100 W. Spotting assistance or using call sign and frequency alerting systems is allowed, but self-spotting or asking somebody to spot you is not. All Rookies must identify themselves as a rookie. Example: "Kilo Bravo One Quebec Alfa Whiskey, Rookie." Non-Rookies only need give their call; no designation is needed.

Awards

Certificates will be available for all participants to download. The top five high scores from each US call area, Canadian province and Mexican call area will be recognized on their certificate. No national winners will be recognized.

Go to www.getscores.org for more information on how to participate. Be sure to check out the April 2010 issue of *QST* for complete rules and other information. The Rookie Roundup -- a fun event for *all* amateurs!



Announcement:

The Lloyd Ray Smith Spring Games sponsored by Special Olympics Area 4 will be held Saturday April 24, 2009 at McCallie Field. If you are interested in volunteering for this event, please contact Gail Boots, KC4ZAG at: geboots@bellsouth.net or during work hours at 756-7117. We hope you can make it! 73's Gail.