HAMATEUR CHATTER

The Milwaukee Radio Amateurs Club

April 2014 Volume 22, Issue 4

One of the World's Oldest Continuously Active Radio Amateur Clubs—since 1917

Presidents' Letter

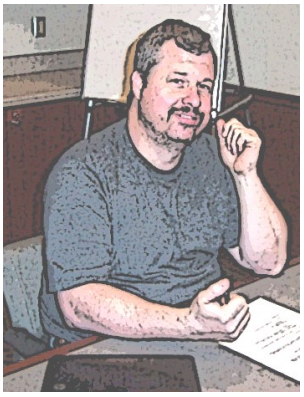
I want to thank Dave WB9BWP for putting on the MRAC History presentation at AES Superfest. This was the best attended session of the day from my point of view. Most people stayed for the whole presentation. I did record the whole presentation and will posted it to once I figure out where. YouTube has length restrictions if you are not a paying customer. Over all I thought it was a good Superfest this year. Things were different this year because of the open concept arrangement. The weather caused problems for a couple of vendors not being able to make it. I also want to thank Al KC9IJJ for providing the PA system, Barry W9BLS and Bob N9PSN for handling the door prizes.

I received a call from a father and son who were looking for help with a science project. They are going to launch a weather balloon with a science experiment on board. They want to use aprs to track the balloon on it's flight. They are both interested in getting their ham radio licenses. The board approved the use of the club call for this project. Joe N9VS and I have been working with them. They attended Superfest and I was able to introduce them to several other hams that are willing to help. At this point I do not have a launch date.

This month's meeting is our election meeting. Joe has announced that he will not run for another term. Please consider helping out the club and run for office. The more help we have the better the things we can do as a group. We have plenty of ideas we would like to develop but we need more help.

May is the annual club auction meeting. Please help promote this event on the air and invite everyone you know. If you have items you would like to sell please bring them to the auction.

The Greenfield Parks board approved our use of Konkel Park again this year. Again this year it will be a joint effort with MAARS and Gateway Technical College. If you are interested in helping with the planning for this event please let me know.



MRAC Officers:

Terms Expiring in 2014

- President – Dave, KA9WXN
- V-President– Dan, N9ASA
- Secretary – Mike, KC9CMT
- Treasurer – Joe, N9UX
- Director – Vacant

Terms Expiring in 2015

- Director – Al, KC9IJJ
- Director – Hal , KB9OZN

The Club Phone Number is: (414) 332-MRAC or

(414) 332- 6 7 2 2

Visit our website at:

www.w9rh.org

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M. R. A. C.

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Combined Meeting Minutes

The March membership meeting was called to order at 7:07 pm by Dave Shank, KA9WXN club president.

Preliminary discussions: The combined meeting minutes from January were accepted as published in the March Chatter by a motion forwarded by Michael, KC9CMT seconded by Al, KC9IJJ. The Treasurers report was given by Joe, N9UX. The February balance ended with $19,680 in our Club accounts. The club got a donation from the estate of Jerry Thompson of $50 for helping to sell his equipment at our swapfest and other help the club provided. Mark Tellier can be congratulated for all the help he gave to the Thompson family. The Treasurers report was accepted as reported by a motion made by Hal, KB9OZN, and seconded by Michael, KC9CMT. Superfest will be on April 5th, with Dave, WB9BWP giving a presentation on the MRAC history. The MRAC is now beta testing a new digital repeater system from Yaesu. It is currently running as a stand alone repeater, the controller is not yet hooked up. It is working both digital and analog signals.

Meeting program: Jeff Annis, K9VS will be giving tonight's presentation on antenna modeling. Jeff took the ARRL antenna modeling course. Jeff starting with modeling engineering designs at work. Modeling antennas gives a better understanding of radiation patterns, gain and take-off angles of various antennas. Modeling software can help you select the best antenna for your site. Antenna modeling was originally developed by G.J. Burke at LLN labs in the late 70's. NEC-2 is the public domain version that was released in 1982. Grounding parameters are important, along with a definition of the type of wire or material being used. The software can also define your ground plane. The software runs a complete analysis of your proposed antenna arraignment. Tuning elements such as traps and stubs can be modeled, even buried ground plane systems. Modeling programs now available; NEC-WIN, EZNEC for $89, and NEC2GO for $40. Jeff has a very complicated antenna array mounted on a 10 foot mast.

Business meeting called to order at 8:47 pm. Next month is the annual election. The club needs new people to volunteer for the board of directors. The Greenfield Parks Department is voting tonight on our application to use Konkel park for field day again this year. There should be no problems getting permission. The club needs to make a decision on the layout for field day. What antennas to use etc...

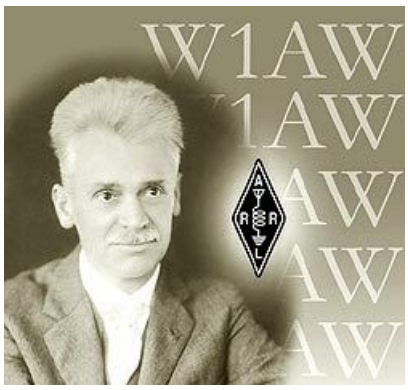
The FM Simplex contest took place this last February. The club category was won by the Badger contesters club. Jerry, K9FI won the mobile category this year. Dave, KA9WXN ran the clubs W9RH station. The MRAC would like to get some more Wisconsin clubs involved in the FM contest. Mark, AB9CD estimated that fifty or sixty people took part in the contest this year. The people that run the Makers' company stated that they would be willing to come and give a presentation at one of our meetings. Poncho would like to see more club members sign-in during the 2 meter net on Friday nights at 9 pm.

Next month, April will be the annual election meeting followed by a presentation and a short business meeting. May will be our annual club auction.

A food gathering with poncho and Jerry will be taking place immediately after tonight's meeting at Denny's on Capitol drive.
A motion was made to adjourn the meeting at 9:14 pm by Dave, KA9WXN seconded by Michael, KC9CMT. Meeting adjourned at 9:15 pm. The room was returned to an clean and organized condition as it was when the room was opened.

ARRL Centennial: W1AW Centennial Operations Now in Massachusetts, Virginia, and Puerto Rico

The ARRL Centennial "W1AW WAS" operations taking place during 2014 from each of the 50 states are now in Massachusetts (W1AW/1), Virginia (W1AW/4), and Puerto Rico (W1AW/KP4). They will relocate at 0000 UTC on Wednesday, April 16 (the evening of April 15 in US time zones), to Mississippi (W1AW/5) and North Dakota (W1AW/0). During 2014 W1AW will be on the air from every state (at least twice) and from most US territories, and it will be easy to work all states solely by contacting W1AW portable operations.



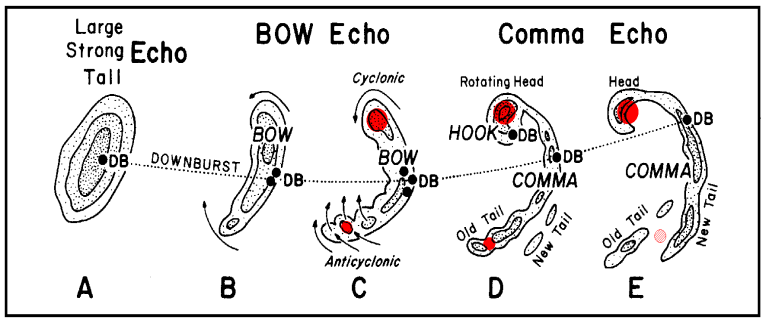
In conjunction with the 100th anniversary of the ARRL, the ARRL Centennial QSO Party kicked off January 1 for a year-long operating event in which participants can accumulate points and win awards. The event is open to all, although only ARRL members and appointees, elected officials, HQ staff, and W1AW are worth ARRL Centennial QSO Party points. Working W1AW/x from each state is worth 5 points per contact.

To earn the "Worked all States with W1AW Award," work W1AW operating portable from all 50 states. (Working W1AW or W100AW in Connecticut does *not* count for Connecticut, however. For award credit, participants must work W1AW/1 in Connecticut.) A W1AW WAS certificate and plaque will be available.

The ARRL has posted an ARRL Centennial QSO Party leader board that participants can use to determine how many points they have accumulated in the Centennial QSO Party and in the W1AW WAS operations. Log in using your Logbook of The World (LoTW) user name and password, and your position will appear at the top of the leader boards. Results are updated daily, based on contacts entered into LoTW.

As of April 7, W1AW/x Centennial QSO Party stations have logged nearly 740,000 contacts. In May, W1AW will begin to revisit states already activated, starting with Utah, Nebraska,

BOW ECHOES and BOOKEND VORTICES

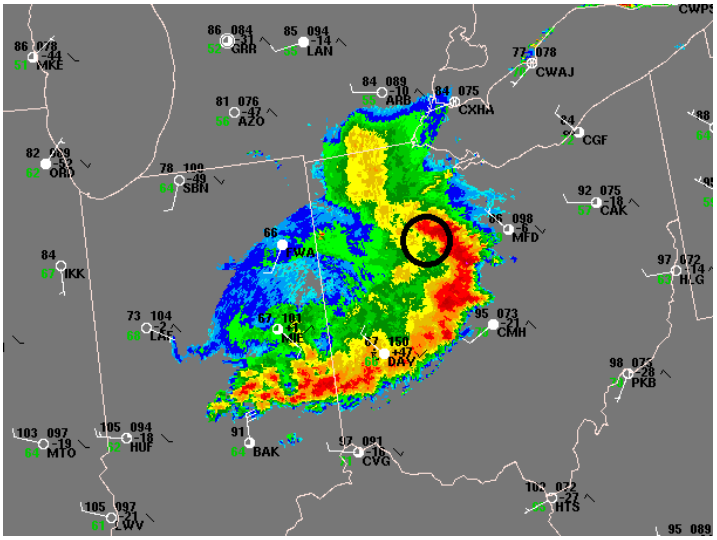


The above figure is a prototype of the evolution (stages A through E) of a ***bow echo*** (from Fujita 1978). The black contour lines are meant to depict radar reflectivity. Dr. T. Theodore Fujita, a professor at the University of Chicago, coined the term "bow echo" in the late 1970s. The terminology was based on how bands of rain showers or thunderstorms "bow out" when strong outflow winds associated with the storms reach the surface and spread out like pancake batter. The bowed rain band is near the leading edge of the damaging winds, and frequently marks the location of where the rear-inflow jet contacts the ground. The storm system on which Fujita based the "bow echo" terminology produced a strong derecho over northern Wisconsin and adjacent states on July 4, 1977.

Derechos typically are associated with a long lived bow echo or a series of bow echoes. These bow echoes may vary in size, but usually go through an evolution that displays at least some of the aspects of the prototype shown above. The time span involved in the schematic varies with the size of the bow and with the background thermodynamic and kinematic (wind/mass field) environment. Small bows tend to evolve more quickly than larger structures, and those that form in very thermodynamically unstable and/or strongly sheared environments usually evolve more rapidly than those forming in more settled regimes. A smaller-scale bow, for example, one whose length extends through perhaps three or four average-sized counties, might evolve from stages A through E in about an hour. In contrast, for a larger-scale bow (such as those associated with many of the more significant, longer-lasting derechos described in Noteworthy Events), the time span involved is on the order of several hours.

During the development of a bow, counter-rotating storms (or areas of storms) commonly appear at both ends of the larger-scale bowing segment, straddling the rear-inflow jet. These storms are known as ***bookend vortices***. In the above schematic, such features are likely to be best-developed during stages "C" and "D" at the locations marked by the red dots. The presence of bookend vortices can enhance the rear-inflow jet and thereby initiate or accelerate the bowing process. If a bow echo persists for some time, i.e., for more than two or three hours, the influence of Coriolis force becomes significant.

This causes the poleward (cyclonic) member of the two vortices to become dominant and, over time, the overall convective system to become increasingly comma-shaped. To emphasize that the poleward member of a bookend pair most often is dominant, the red dots on the left side of the dotted downburst ("DB") path in the schematic have been drawn larger than those on the right, with the hatched depiction of the southern vortex in stage "E" signifying its demise. A composite radar view of a comma-shaped derecho-producing convective system with a bookend vortex is shown below. The radar image most closely corresponds to stage "D" in the schematic. The location of the system's northern bookend vortex is highlighted by the open circle in northwest Ohio.



DERECHO-PRODUCING STORMS

Derechos are associated with bands of showers or thunderstorms (collectively referred to as "convection") that assume a curved or bowed shape. The bow-shaped storms are called ***bow echoes***. Bow echoes typically arise when a storm's rain-cooled outflow winds are strong, and move preferentially in one direction.

A derecho may be associated with a single bow echo or with multiple bows. Bow echoes, in turn, may consist of an individual storm, or may be comprised of a series of adjacent storms (i.e., a ***squall line*** or, more formally, a ***quasi-linear convective system***) that together take on a larger scale bow shape. Bow echoes may dissipate and subsequently redevelop during the course of given derecho. Derecho winds occasionally are enhanced when a rotating band of storms

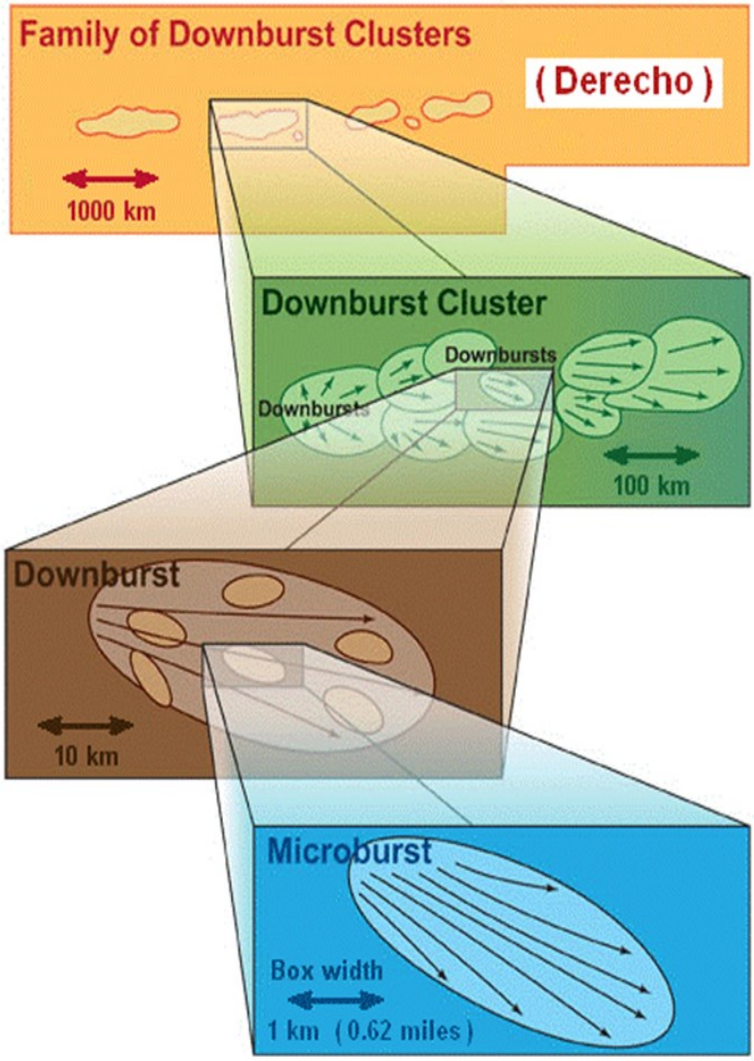
called a ***bookend vortex*** develops on the poleward side of the bow echo storm system. Derecho winds also may be augmented by the presence of embedded ***super-cells*** (rotating thunderstorms) and other smaller-scale circulations in the derecho-producing convective system.

As noted previously, derecho winds are the product of what meteorologists call ***downbursts***. A downburst is a concentrated area of strong wind produced by a convective downdraft. Downbursts have horizontal dimensions of about 4 to 6 miles (8 to 10 kilometers), and may last for several minutes.

The convective downdrafts that comprise downbursts form when air is cooled by the evaporation, melting, and/or sublimation (the direct change to vapor phase) of precipitation in thunderstorms or other convective clouds. Because the chilled air is denser than its surroundings, it becomes negatively buoyant and accelerates down toward the ground. Derechos occur when meteorological conditions support the repeated production of downbursts within the same general area.

The ***"downburst clusters"*** that arise in such situations may attain overall lengths of up to 50 or 60 miles (80 to 100 kilometers), and persist for several tens of minutes. Within individual downbursts there sometimes exist smaller pockets of intense winds called ***microbursts***. Microbursts occur on scales (approximately 2 1/2 miles or 4 km) that are very hazardous to aircraft; several notable airline mishaps in recent decades resulted from unfortunate encounters with microbursts. Still smaller areas of extreme wind within microbursts are called ***burst swaths***. Burst swaths range from about 50 to 150 yards (45 to 140 meters) in length. The damage they produce may resemble that caused by a tornado.

A typical derecho consists of numerous downburst clusters ("families of downburst clusters") that are, in turn, comprised of many smaller downbursts, microbursts, and burst swaths. The schematic below illustrates the scalar relationships between these features.



Derecho Development

Derecho development necessarily is tied to the formation of bow echoes. A bow echo usually arises from a cluster of thunderstorms, but also may evolve from a single strong storm. Bow echoes most frequently occur when tropospheric winds are relatively strong and unidirectional (i.e., they vary little in direction with height). As the rain-cooled downdraft of a thunderstorm reaches the earth's surface, it spreads horizontally, most rapidly in the direction of the mean tropospheric flow. As the cool, dense air spreads outward, it forces the lighter, warm and moist air surrounding the storm up along the leading edge of the outflow, or gust front (see figure below, with mean flow assumed to be from left to right).

The upward motion along the gust front typically is greatest along that part of the front that is moving most rapidly --- that is, progressing --- in the downwind direction (to the right in the figure). Gust fronts often are marked by low, ominous cloud formations known as ***arcus*** or ***shelf*** clouds. Photographs of such clouds on the forefront derecho-producing storms appear at the top of this page.

How Relays Work

Relays are switches that open and close circuits electromechanically or electronically. Relays control one electrical circuit by opening and closing contacts in another circuit. As relay diagrams show, when a relay contact is normally open (NO), there is an open contact when the relay is not energized. When a relay contact is Normally Closed (NC), there is a closed contact when the relay is not energized. In either case, applying electrical current to the contacts will change their state.

Relays are generally used to switch smaller currents in a control circuit and do not usually control power consuming devices except for small motors and Solenoids that draw low amps. Nonetheless, relays can "control" larger voltages and amperes by having an amplifying effect because a small voltage applied to a relays coil can result in a large voltage being switched by the contacts.

Protective relays can prevent equipment damage by detecting electrical abnormalities, including overcurrent, undercurrent, overloads and reverse currents. In addition, relays are also widely used to switch starting coils, heating elements, pilot lights and audible alarms.

Electromechanical Relays vs Solid State Relays.

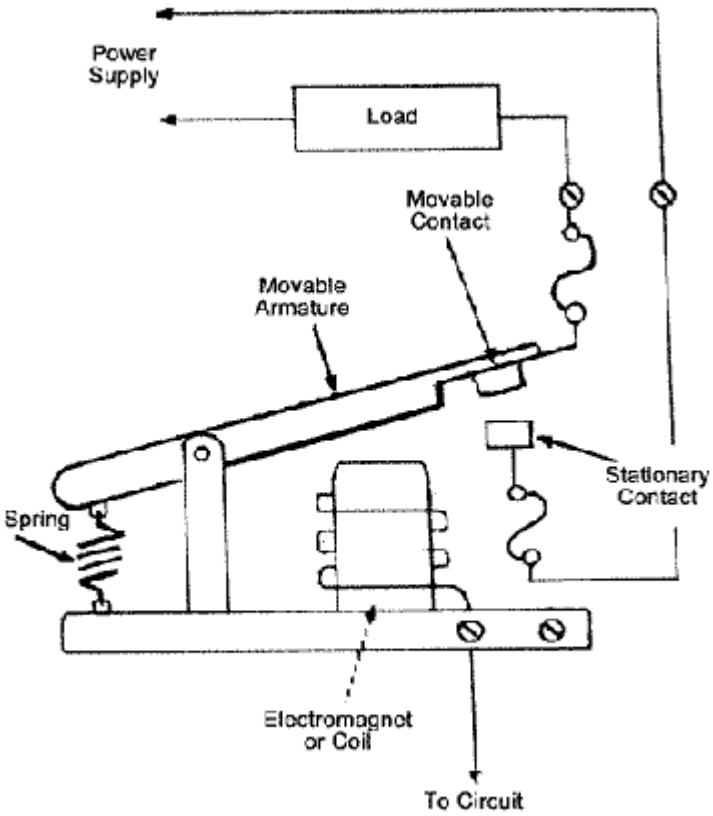
Relays are either electromechanical relays or solid-state relays. In**electromechanical relays** (EMR), contacts are opened or closed by a magnetic force. With **solid-state relays** (SSR), there are no contacts and switching is totally electronic. The decision to use electromechanical or solid state relays depends on an application's electrical requirements, cost constraints and life expectancy. Although solid-state relays have become very popular, electromechanical relays remain common. Many of the functions performed by heavy-duty equipment need the switching capabilities of electromechanical relays. Solid State Relays switch the current using non-moving electronic devices such as silicon controlled rectifiers.

These differences in the two types of relays result in advantages and disadvantages with each system. Because solid state relays do not have to either energize a coil or open contacts, less voltage is required to "turn" Solid State Relays on or off. Similarly,

Solid State Relays turn on and turn off faster because there are no physical parts to move. Although the absence of contacts and moving parts means that Solid State Relays are not subject to arcing and do not wear out, contacts on Electromechanical Relays can be replaced, whereas entire Solid State Relays must be replaced when any part becomes defective. Because of the construction of Solid State Relays, there is residual electrical resistance and/or current leakage whether switches are open and closed. The small voltage drops that are created are not usually a problem; however, Electromechanical Relays provide a cleaner ON or OFF condition because of the relatively large distance between contacts, which acts as a form of insulation.

Electromechanical Relays.

1. Basic parts and functions of electromechanical relays include:
   Frame: Heavy-duty frame that contains and supports the parts of the relay.
2. **Coil:** Wire is wound around a metal core. The coil of wire causes an electromagnetic field.
3. **Armature:** A relays moving part. The armature opens and closes the contacts. An attached spring returns the armature to its original position.
4. **Contacts:** The conducting part of the switch that makes (closes) or breaks (opens) a circuit.



Relays involve two circuits: the energizing circuit and the contact circuit. The coil is on the energizing side; and the relays contacts are on the contact side. When a relays coil is energized, current flow through the coil creates a magnetic field. Whether in a DC unit where the polarity is fixed, or in an AC unit where the polarity changes 120 times per second, the basic function remains the same: the magnetic coil attracts a ferrous plate, which is part of the armature. One end of the armature is attached to the metal frame, which is formed so that the armature can pivot, while the other end opens and closes the contacts. Contacts come in a number of different configurations, depending on the number of Breaks, poles and Throws that make up the relay. For instance, relays might be described as Single-Pole, Single-Throw (SPST), or Double-Pole, Single-Throw (DPST). These terms will give an instant indication of the design and function of different types of relays.

Break -This is the number of separate places or contacts that a switch uses to open or close a single electrical circuit. All contacts are either single break or double break. A single break (SB) contact breaks an electrical circuit in one place, while a double break (DB) contact breaks it in two places. Single break contacts are normally used when switching lower power devices such as indicating lights. Double break contacts are used when switching high-power devices such as solenoids.

Pole -This is the number of completely isolated circuits that relays can pass through a switch. A single-pole contact (SP) can carry current through only one circuit at a time. A double-pole contact (DP) can carry current through two isolated circuits simultaneously. The maximum number of poles is 12, depending upon a relays design.

Throw -This is the number of closed contact positions per pole that are available on a switch. A switch with a single throw contact can control only one circuit, while a double-throw contact can control two.

Types of Relays: Electromechanical.

1. **General Purpose Relays** are electromechanical switches, usually operated by a magnetic coil. General purpose relays operate with AC or DC current, at common voltages such as 12V, 24V, 48V, 120V and 230V, and they can control currents ranging from 2A-30A. These relays are economical, easy to replace and allow a wide range of switch configuration.
2. **Machine Control Relays** are also operated by a magnetic coil. They are heavy-duty relays used to control starters and other industrial components. Although they are more expensive than general purpose relays, they are generally more durable. The biggest advantage of machine control relays over general purpose relays is the expandable functionality of Machine Control Relays by the adding of accessories. A wide selection of accessories is available for machine control relays, including additional poles, convertible contacts, transient suppression of electrical noise, latching control and timing attachments.
3. **Reed Relays** are a small, compact, fast operating switch design with one contact, which is NO. Reed Relays are hermetically sealed in a glass envelope, which makes the contacts unaffected by contaminants, fumes or humidity, allows reliable switching, and gives contacts a higher life expectancy. The ends of the contact, which are often plated with gold or another low resistance material to increase conductivity, are drawn together and closed by a magnet.
1. Reed relays are capable of switching industrial components such as solenoids, contactors and starter motors. Reed relays consists of two reeds. When a magnetic force is applied, such as an electromagnet or coil, it sets up a magnetic field in which the end of the reeds assume opposite polarity. When the magnetic field is strong enough, the attracting force of the opposite poles overcomes the stiffness of the reeds and draws them together. When the magnetic force is removed, the reeds spring back to their original, open position. These relays work very quickly because of the short distance between the reeds.

Solid State Relays.

Solid state relays consist of an **input circuit**, a **control circuit** and an **output circuit**. The Input Circuit is the portion of a relays frame to which the control component is connected. The input circuit performs the same function as the coil of electromechanical relays. The circuit is activated when a voltage higher than the relays specified Pickup Voltage is applied to the relays input. The input circuit is deactivated when the voltage applied is less than the specified minimum Dropout voltage of the relay. The voltage range of 3 VDC to 32 VDC, commonly used with most solid-state relays, makes it useful for most electronic circuits.

The Control Circuit is the part of the relay that determines when the output component is energized or de-energized. The control circuit functions as the coupling between the input and output circuits. In electromechanical relays, the coil accomplishes this function. A relays Output Circuit is the portion of the relay that switches on the load and performs the same function as the mechanical contacts of electromechanical relays. Solid-state relays, however, normally have only one output contact.

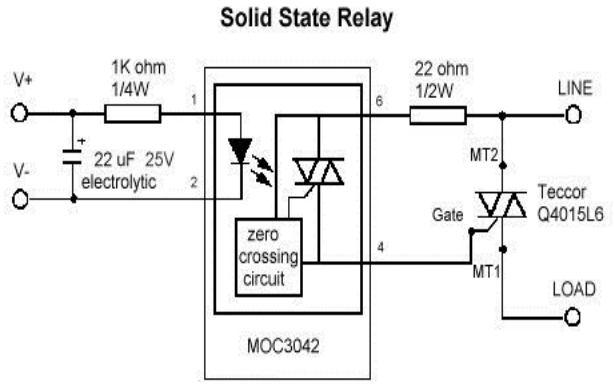
Types of Relays: Solid State.

1. **Zero-Switching Relays** - relays turns ON the load when the control (minimum operating) voltage is applied and the voltage of the load is close to zero. Zero-Switching relays turn OFF the load when the control voltage is removed and the current in the load is close to zero. Zero-Switching relays are the most widely used.
2. **Instant ON Relays** - turns ON the load immediately when the pickup voltage is present. Instant ON Relays allow the load to be turned ON at any point in it's up and down wave.
3. **Peak Switching Relays** - turns ON the load when the control voltage is present, and the voltage of the load is at its peak. Peak Switching relays turn OFF when the control voltage is removed and the current in the load is close to zero.
4. **Analog Switching Relays** - has an infinite number of possible output voltages within the relays rated range. Analog switching relays have a built in synchronizing circuit that controls the amount of output voltage as a function of the input voltage.

1. This allows a Ramp-Up function of time to be on the load. Analog Switching relays turn OFF when the control voltage is removed and current in the load is near zero.

A Relays Contact Life.

A relays useful life depends upon its contacts. Once contacts burn out, the relays contacts or the entire relay has to be replaced. Mechanical Life is the number of operations (openings and closings) a contact can perform without electrical current. A relays mechanical life is relatively long, offering up to 1,000,000 operations. A relays Electrical life is the number of operations (openings and closings) the contacts can perform with electrical current at a given current rating. A relays Contact electrical life ratings range from 100,000 to 500,000 cycles.



Early Radio: Military Communications

Humor in a Near Death Experience

by (Lt.) Henry Hickman

Occasionally, even in an armed conflict, there is humor in being wounded.

One form of entertainment that I have always enjoyed is the old, silent, black and white comedies such as Keaton and Chaplin. The top of the list falls to the Keystone Cops. It seems that in every episode, at least once, there's someone who falls or is knocked into a mud hole. What tickles my funny bone is the manner in which they end up in the hole. But funnier yet is that stupid expression on the individuals face as he is spitting mud out. Unbeknownst to me at the end of February 1968, I would find myself in a similar situation, but the hole I ended up in did not have mud in it.

At the end of December, 1967, the artillery unit that I was stationed with was moved to a Fire Support Base fourteen (14) kilometers west-southwest of Dak To, Vietnam. This base was called LZ Dogbone. When viewed from the air you could see how it got its name. Two bald, dirt knolls with a saddle in between situated on a valley plateau between two mountain ranges, due east and west. Three kilometers west of the base, the plateau plunged into a deep valley that butted up to the west range of mountains. The infantry perimeter around the base was shaped just like the dog biscuit you see advertised on TV or on the grocers shelves, hence the name.

They placed our firing battery on the western knoll and it took us a couple of days to finally get settled in. During those two days, things were quiet and there wasn't any enemy action going on around us. I had just finished a book about the French defeat by the Viet Minh at Dien Bien Phu back in the 1950's, this place reminded me of the same position the French had been in, in a valley with mountains basically all around. Needless to say, this did not give me a very comforting feeling. The closest friendlies were fourteen (14) kilometers away and it was just us, in the artillery and one (1) infantry company in this position.

The third day fortified my "gut" feelings; about two (2) in the afternoon, three (3) mortar rounds hit the fire base, luckily no one got hurt. One thing about mortar rounds is that when they hit the ground and explode, they leave a pattern that will give you a general idea as to the direction they came from. By the time we left this base, we had fired enough artillery rounds to almost denude this forest from due west to due south, three kilometers out.

As it got nearer to the Chinese New Year (Tet) the mortar attacks became more frequent and sometimes there was more than one a day. This was not a great moral builder for any of us. We couldn't understand why they had put us in this position, the infantry hardly left the fire base on sweeps, and then they only went out a couple of kilometers and came back to the base. This basically left the area around us free for the enemy to come and go as he pleased. To this day it still baffles me as to why they ever put us in that position. During our whole stay there, not one major ground action by American or Vietnamese forces took place in or around the area that would be covered by our artillery howitzers. In the course of this stay we had on kid killed (Bob Alexander) and five wounded, for what?

Finally on the evening of February 28th a radio message came in that we would be leaving this place and going back to Dak To to convoy back to base camp for a month, we had been in the field for nine (9) months. You can't know just how happy we were to get that message. This place had been a "Hell Hole", dirty, mortar attacks and a feeling of despair,

"God" I was glad to be leaving it. The only good thing about it was that we hadn't had the experience of a ground attack by enemy infantry.

The next morning about 0800hrs the choppers started coming in to pick up personnel and our howitzers. With our equipment and the altitude that we were at, it usually took almost six (6) hours to completely get us moved off of a fire base. Because this base was totally void of vegetation, we wore gas masks so we could keep the flying dirt and debris out of our eyes that was churned up every time a chopper hovered to pick up something. Every time a chopper would hover, mortar rounds would hit the base, so this really created more havoc and of course really created adrenaline flow. And each time you hit the ground and swore thinking to yourself, "God, get me off this blankety blank place".

At last, about 1 pm a chopper came in to pick up the last howitzer. I and my radio operator (I think it was Grasso from Seattle) were standing on the north east portion of the west knoll as the chopper lifted up this howitzer and left, again mortar rounds. I told the operator to get his stuff and get over to the other knoll so we could get on another chopper to get out of there. As he headed down the saddle I took off my gas mask and put it in its case. I started to turn to go pick up my stuff and it felt like someone with a big foot kicked me from the rear. The next thing I remember is that I'm spread eagle face down in a hole, spitting grit and dirt out of my mouth. My left arm is numb and as I looked at my elbow, its scraped up, so I figured I'd hit my "crazy bone" when I hit the ground. I looked back over my shoulder and about fifteen feet behind me is a hole (mortar round) still smoking. About then, Armstrong a kid in the ammo section jumped in the hole with me. His eyes were big as saucers, and fear was written all over his face. He asked me if I was hit, I told him that I didn't think so, the shock hadn't worn off yet. I'll never forget what Armstrong then said, "Sir, lets get the blank off this place". I told him to get over to the other knoll. I got up and walked over to get my equipment. Suddenly I realized that I couldn't pick anything up with my left arm.

Finally, after struggling with a steel pot, a M-16, a rut sack, and a waterproof bag, I got everything n my right arm. As I wobbled down the saddle, heading for the other knoll, I suddenly felt something warm flowing down my left arm. As I looked down at my arm, it didn't take a rocket scientist to tell me that I had been hit.

When I finally got back to Dak To, I was as green as the jungle fatigues I had on. Luckily the mortar fragment had gone clean through the meaty portion of the inside of my arm pit. Luckier still, by being uphill from where the round hit, I probably would have ended up paralyzed or worse, in a body bag.

Now, I look back at that day and kind of chuckle, because I'm sure that I looked exactly like one of those characters in the Keystone Cop films. I would give anything to had a picture of the look on my face as I was spitting dirt out of my mouth, I'll never know.

Coping with a traumatic event

A traumatic event turns your world upside down.

After surviving a disaster or act of violence, people may feel dazed or even numb. They may also feel sad, helpless, or anxious. In spite of the tragedy, some people just feel happy to be alive.

It is not unusual to have bad memories or dreams. You may avoid places or people that remind you of the disaster. You might have trouble sleeping, eating, or paying attention. Many people have short tempers and get angry easily.

These are all normal reactions to stress.

It will take time before you start to feel better.

You may have strong feelings right away. Or you may not notice a change until much later, after the crisis is over. Stress can change how you act with your friends and family. It will take time for you to feel better and for your life to return to normal. Give yourself time to heal.

These steps may help you feel better.

A traumatic event disrupts your life. There is no simple fix to make things better right away. But there are actions that can help you, your family, and your community heal. Try to:

- Follow a normal routine as much as possible.
- Eat healthy meals. Be careful not to skip meals or to overeat.
- Exercise and stay active.
- Help other people in your community as a volunteer. Stay

busy.

Accept help from family, friends, co-workers, or clergy.

Talk about your feelings with them.

Limit your time around the sights and sounds of what happened.

Don't dwell on TV, radio, or newspaper reports on the tragedy.

Sometimes the stress can be too much to handle alone.

Ask for help if you:

Are not able to take care of yourself or your children.

Are not able to do your job.

Use alcohol or drugs to get away from your problems.

Feel sad or depressed for more than two weeks

Think about suicide.

If you or someone you know is having trouble dealing with the tragedy, ask for help. Talk to a counselor, your doctor, or community organization, such as the National Suicide Prevention Lifeline (1-800-273-TALK).

Name of Net, Frequency, Local Time	Net Manager
Badger Weather Net (BWN) 3984 kHz, 0500	W9IXG
Badger Emergency Net (BEN) 3985 kHz, 1200	NX9K
Wisconsin Side Band Net (WSBN) 3985 or 3982.5 kHz, 1700	KB9KEG
Wisconsin Novice Net (WNN) 3555 kHz, 1800	KB9ROB
Wisconsin Slow Speed Net (WSSN) 3555 kHz, Sn, T, Th, F, 1830	N1KSN
Wisconsin Intrastate Net - Early (WIN-E) 3555 kHz, 1900	WB9ICH
Wisconsin Intrastate Net - Late (WIN-L) 3555 kHz, 2200	W9RTP
ARES/RACES Net 3967.0 kHz, 0800 Sunday	WB9WKO
* Net Control Operator needed. Contact Net Manager for information.	

Next Regular Meeting

The next meeting will be on Thursday, April 24th at 7:00PM. We meet in the Fellowship Hall of Redemption Lutheran Church, 4057 N Mayfair Road. Use the south entrance. Access the MRAC Yahoo group for important details about the February Meeting.

Meeting Schedule:

May 29th 2014 7 pm

Please do not call the church for information!

Club Nets

Please check in to our nets on Friday evenings.

Our ten meter SSB net is at **8:00 p.m.** at **28.490 MHz USB** Our two meter FM net follows at **9:00 p.m**. on our repeater at **145.390 MHz** with a minus offset and a **PL of 127.3 Hz.**

Visit our website at: **www.w9rh.org**

Or phone (414)-459-9741

Chatter Deadline

The **DEADLINE** for items to be published in the **Chatter** is the **15th of each month**. If you have anything (announcements, stories, articles, photos, projects) for the 'Chatter, please get it to me before then.

You may contact me or Submit articles and materials by e-mail at: **Kc9cmt@earthlink.net**

or by Post to:

Michael B. Harris

807 Nicholson RD

South Milwaukee, WI 53172-1447

VE Testing:

April 26th, 2014
May 31st, 2014
Location: Amateur Electronic Supply Time: 9:30 AM (Walk-ins allowed)
ALL testing takes place at: Amateur Electronic Supply 5720 W. Good Hope Rd. Milwaukee, WI 53223

Area Swapfests

May 3rd, 2014 ORC Spring Hamfest Location: Cedarburg, WI Sponsor: Ozaukee Radio Club
Website: http://www.ozaukeeradioclub.org
May 4th, 2014 The DeKalb Hamfest
Location: Sandwich, IL
Sponsor: Kishwaukee Amateur Radio Club
Website: http://www.karc-club.org

MRAC Working Committees
100th Anniversary:

- Dave—KA9WXN
- Dan—N9ASA

Net Committee:

- Open

Field Day

Dave—KA9WXN, Al—KC9IJJ

FM Simplex Contest

- Joe – N9UX
- Jeff – K9VS

Ticket drum and drawing

- Tom – N9UFJ

Newsletter Editor

- Michael-KC9CMT

Webmaster

- Mark Tellier—AB9CD

Refreshments

- Hal—KB9OZN

Membership Information

The Hamateur Chatter is the newsletter of MRAC (Milwaukee Radio Amateurs' Club), a not for profit organization for the advancement of amateur radio and the maintenance of fraternalism and a high standard of conduct. MRAC Membership dues are $17.00 per year and run on a calendar year starting January 1st. MRAC general membership meetings are normally held at 7:00PM the last Thursday of the month except for November when Thanksgiving falls on the last Thursday when the meeting moves forward 1 week to the 3rd Thursday and December, when the Christmas dinner takes the place of a regular meeting. Club Contact Information

Our website address **http://www.w9rh.org**

Telephone **(414)-459-9741**

Address correspondence to:

MRAC, PO Box 26233, Milwaukee, WI 53226-0233

Email may be sent to: **w9rh@arrl.net .** Our YAHOO newsgroup:

http://groups.yahoo.com/group/MRAC-W9RH/

CLUB NETS:

- The Six Meter SSB net is Thursday at 8:00PM on 50.160 MHz USB
- Our Ten Meter SSB net is Friday at 8:00PM on 28.490 MHz ± 5 KHz USB.
- Our Two Meter FM net follows the Ten meter net at 9:00PM on our repeater at 145.390MHz - offset (PL 127.3)

The MRAC HamChatter is a monthly publication of the Milwaukee Radio Amateurs' Club. Serving Amateur Radio in Southeastern Wisconsin & all of Milwaukee County
Club Call sign – W9RH
MRAC Website: http://www.W9RH.org
Editor: Michael B. Harris, Kc9cmt, kc9cmt@Earthlink.net

Milwaukee Area Nets

Mon.8:00 PM 3.994 Tech Net

Mon.8:00 PM 146.865- ARRL Newsline

Mon.8:00 PM 146.445+ Emergency Net

Mon.8:00 PM 146.865- Walworth County ARES net

Mon.8:45 PM 147.165- ARRL Audio News

Mon. 8:00 PM 442.100+ Railroad net, also on EchoLink

Mon. 8:30 PM 442.975+ WARC W9CQ net also on EchoLink 576754

Mon. 8:30 PM 442.150+ Waukesha ARES Net on the 1st, 3rd, and 5th Monday of each month.

Mon. 9:00 PM 147.165– Milwaukee County ARES Net

Tue.9:00 AM 50.160 6. Mtr 2nd Shifter's Net

Tue. 9:00 PM 145.130+ MAARS Hand Shakers Net

Tue. 8:00 PM 7.035 A.F.A.R. (CW)

Wed. 8:00 PM 145.130+MAARS Amateur Radio Newsline

Wed. 8:00 PM 147.045+ West Allis ARC net

Wed. 8:00 PM 147.270+ Racine County ARES net

Wed. 9:00 PM 145.130+MAARS SwapNet, link to FM-38

Thur. 8:00 PM 50.160, 6 Mtr SSB Net

Thur. 9:00 PM 146.910+ Computer Net

Fri. 8:00 PM 28.490 MRAC W9RH 10 Mtr SSB Net

Fri. 9:00 PM 145.390+ W9RH 2 MTR. FM Net

Sat. 8:00 PM 146.910+ YL's Pink HAMsters Net

Sat. 9:00 PM 146.910+ Saturday Night Fun Net

Sun 8:30 AM 3.985 QCWA (Chapter 55) SSB net

Sun 9:00 AM 145.565+ X-Country Simplex Group

Sun 8:00 PM 146.910+ Information Net

Sun 8:00 PM 28.365 10/10 International Net (SSB)

Sun 9:00 PM 146.910+ Swap Net

Daily: Milwaukee — Florida Net 7 am, 14.290 mhz.

Thursday's 8:00 PM 448.300+ Tech Net

2meter repeaters are offset by 600KHz - - 70 centimeter repeaters are offset by 5 MHz