

# MRAC Hamateur Chatter

The Milwaukee Radio Amateurs Club

April 2017 Volume 25, Issue 4

**100 Years, 1917—2017** The oldest Continuous Ham Radio Club in the United States

## MRAC recognized by ARRL

The MRAC was declared the oldest continuous Amateur Radio club in America, by Kermit Carlson, W9XA, Central Division Director of the ARRL. Seen here along with Patrick Moretti, KA1RB, presenting a commemorative plaque, from our friends at the ARRL, to Dave Shank, WA9WXN & Dave DeFebo, WB9BWP. In recognition of our 100<sup>th</sup> year as a radio club.



## ISS Packet System Returns to VHF

The Amateur Radio on the International Space Station ([ARRL](#)) packet digipeater system is again operating on VHF -- 145.825 MHz. The failure of an Ericsson handheld VHF transceiver on board the ISS last fall had caused ARISS to shift packet operation to 70 centimeters. In February, a cargo resupply mission

failed, which had been used in the *Columbus* module for school group contacts and for Amateur Radio packet. While the VHF transceiver was offline, ARISS shifted school contacts from NA1SS to the Kenwood TM-D710 transceiver in the Russian *Service Module*. NASA ISS Ham Project Coordinator Kenneth Ransom, N5VHO, said the VHF capability now back in *Columbus* can be used in conjunction with passes involving the HamTV digital amateur television (DATV) system, which operates on 2.4 GHz.

ARRL International Chair Frank Bauer, KA3HDO, said recently that ARISS continues to make progress on the development of the new interoperable radio system on the ISS "that we hope to use to replace our aging radio infrastructure in the *Columbus* module and the *Service* module." Packets digipeated in a valid APRS format via the ISS system and picked up by an internet gateway station are documented on the "[Amateur Radio Stations heard via ISS](#)" page. -- Thanks to Kenneth Ransom, N5VHO, ISS Ham Project Coordinator



### MRAC Officers:

#### Terms Expiring in 2018

- President – Dave, KA9WXN
- V-President– Dan, N9ASA
- Secretary – MBH, KC9CMT
- Treasurer – MBH,,KC9CMT

#### Terms Expiring in 2017

- Director – Al, KC9IJJ
- Director – Vacant
- Director – Tom, W9TJP
- Director--Dale, AB9DW

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

(414) 332- 6 7 2 2

Visit our website at:

[www.w9rh.org](http://www.w9rh.org)

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**M. R. A. C.**

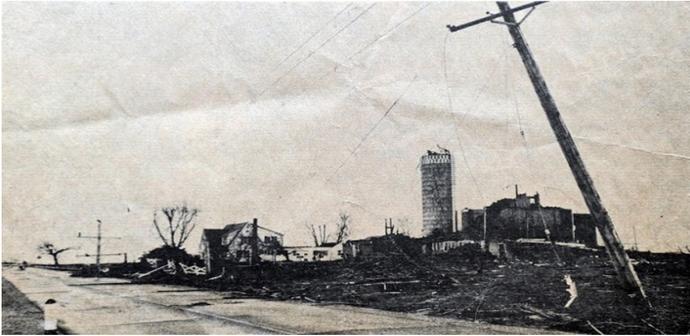
**PO Box 26233**

**Milwaukee, WI**

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**1974 Fond du Lac area tornadoes**

"It sounded like a formation of bombers...and the sound of frying eggs, all at the same time. There was a big, billowy black cloud moving fast to the northeast, with this 500 to 1,000-foot-long funnel hanging down, kind of bouncing along, sweeping back and forth, sort of like a broom." — Loren Sperry [by The Fond du Lac Reporter](#)



Historic 1974 twister left 59-mile path of destruction in Fond du Lac area

*"It sounded like a formation of bombers...and the sound of frying eggs, all at the same time. There was a big, billowy black cloud moving fast to the northeast, with this 500 to 1,000-foot-long funnel hanging down, kind of bouncing along, sweeping back and forth, sort of like a broom."*  
— Loren Sperry, Sheboygan Press writer, April 22, 1974

There was no Twitter, no Facebook 40 years ago. There was a telephone — the corded kind — and less than five minutes to gather everyone you loved and get them to the basement. Many survivors of the April 21, 1974 tornado that ripped through Dodge, Fond du Lac and Sheboygan County say they heard the warnings earlier in the day, but they didn't know a tornado was coming until they saw it with their own eyes. The F3-rated tornado initially touched down 4.9 miles north-east of Beaver Dam at about 3:30 p.m. and followed a 59.4-mile path before rising into the sky at about 4:40 p.m. near Howards Grove, according to the National Weather Service Milwaukee/Sullivan office.

Chris Thelen was 8 years old and he remembers the day being warmer than usual and windy. He said he was indoors when his father, Melvin, rushed in and ushered the family into the basement of their farmhouse at N11669 Highway 175 near Lomira.

Melvin Thelen was in the barn when he realized he had left his only pitchfork in his truck. Chris Thelen said his father was a practical man and had two barns, but only one fork.



"He would have been upstairs in the barn when the tornado came through had he had not forgotten that fork," said Thelen, 47, who now operates Maple Leaf farms. "That's when he saw the tornado come. He came in the house ... I remember him coming in and telling us to get in the basement.

"He called the neighbor across the road to tell him there was a tornado coming."

Hiding in the southwest corner of the basement, Thelen said he could hear "crunching and cracking" as the storm passed overhead. It took the roof off the garage, sawed the barn down to its foundation and knocked over a silo, but it did not destroy the house.

The Thelen family, including Chris, his mother, father, and sister, emerged from the basement stairs into a beating rain. "When we came up there wasn't much left," Thelen said. "It was raining really hard, I remember that. We had cattle like we do now. When we came up the basement steps we could see there were cows or heifers walking by the window. The basement steps are on the south side of the house — the house stayed standing — everything north, the barn were gone."



**Out of the rubble**

Beneath the rubble were the farm's dairy cows, pictured in a local newspaper clipping April 22, 1974 that Thelen keeps neatly tucked in a folder with dozens of photos. Neighbors came to help dig out the animals, but couldn't save them all. "Maybe six or seven of them were sold; you couldn't keep them," Thelen said. "They weren't viable animals anymore."



Thelen said for days about 70 to 100 people helped pick-up the Thelen farm and about two months the said it was "slowly rebuilt."



**"At one time, we saw the whole thing raise up into the air and split into three or four funnels and then merge back into one and touch down."  
— Darel A Smith, The Reporter, April 22, 1974**

Robert L. Samuel, director of emergency government for Fond du Lac County, told The Reporter's Steve Sandberg that three tornadoes touched down: one near the intersection of Highways 175 and 49, one near Lomira and another near Pickett and Rosendale. He did not include a vicious twister earlier in the afternoon that slashed through Oshkosh, where 400 homes were damaged. According to an April 22, 1974 article in The Reporter, it was the first time the wail of the city sirens were heard for "real emergency."

**Cub reporter**

Michael Mentzer, former managing editor of The Reporter, had been on staff less than two years when Editor Tony Leon asked him to "get out there and talk to people," he said. As he exited Highway 41 at 49, Mentzer said, "It looked like a bomb had blown apart Kindt Lumber at Lomira. Boards and insulation from Kindt were scattered for blocks, if not miles.

**"When I came in here Sunday I would have liked to have gotten a bulldozer and buried the place. ... (It's not as bad as I thought.**

**—Bruce Barter, VP of Kindt Lumber Co. The Reporter, April 24, 1974**

Damage in Dodge and Fond du Lac County was estimated at \$2.5 million in 1974 — the equivalent of \$12 million in 2014, according to Consumer Price Index.

**Two killed in storm**

In the storm aftermath, rescuers discovered two people had been killed. Frances Whitty, 74, of Eden, died when her mobile home was lifted into the air and torn apart.

**"Mrs. Whitty's son, Wilbur, and her grandson, Dan, were working in a barn doing chores for her and didn't hear or notice anything prior to the tornado. They came out of the barn, saw the tornado hit Mrs. Whitty's trailer and take it up in the air and smash it apart. Wilbur Whitty reportedly tried to revive his mother after locating her in the wreckage, but could not."**

**— Bob Joslyn, Sheboygan Press writer, April 22, 1974**



**Woman killed as tornado hits mobile home**  
Scattered debris is all that remains of a mobile home struck by a tornado Sunday. Mrs. Frances Whitty was killed when the home was flung about 300 feet and torn apart by the tornado. The home was located along County Trunk F in the Eden area. Its foundation can be seen in the background. (Fond du Lac Reporter Photo by Ralph Waldo)

**Scenes of tornado damage in 2 counties**



**Friends helping the Jerome Becks of Campbelsport area**



**Interior of Kindt Building**

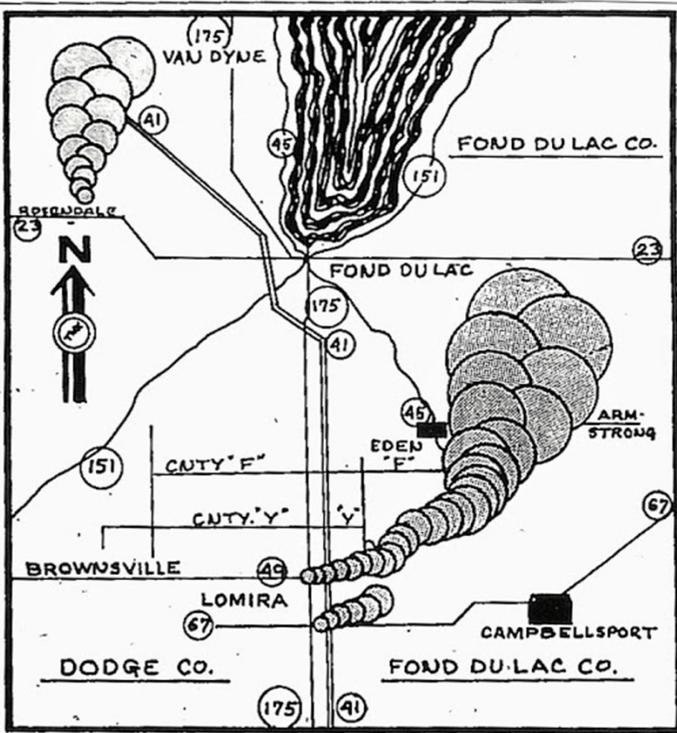
(Tornado pictures by Ted Kremer, Ralph Waldo and Jack LaFrance, all Reporter staff photographers)

"I've never forgotten Club 49 and all the damage at the intersection of Highways 49 and 175," said Menter, a 25-year-old Area Desk reporter. "I remember the devastation at the Jon Ebert farm and all the dairy cows trapped and injured when the barn fell on them. And I remember thinking that it would take forever to clean up the mess all over the countryside. Kindt Lumber was rebuilt and still exists today at Highway 41 and 49 as ProBuild.

Whitty was the only Fond du Lac area fatality. Near Sheboygan, the Press reported 5-month-old Brian Palbrach died of injuries suffered when a tornado lifted his family's vehicle and flung it into a tree. His mother and father, Gary and Christine, and cousin, Laurie Omitt, survived, according to the article. The family was traveling from Milwaukee to Stevens Point and had gotten lost near Howards Grove.

Near Sheboygan, the Press reported 4-year-old Brian Palbrach died of his injuries suffered when a tornado lifted his family's vehicle and flung it into a tree. His mother and father, Gary and Christine, and cousin, Laurie Omitt, survived, according to the article. The family was traveling from Milwaukee to Stevens Point when it had gotten lost near Howards Grove.

**"It sounded like a freight train coming through. I never saw anything like it. In five minutes, it was all over."  
—Leslie Wunsch, Sheboygan Press, April 22, 1974**



**Areas of county struck by tornadoes**  
Map traces the paths of destruction caused by tornadoes which touched down in northeastern Dodge County and several areas of Fond du Lac County Sunday. (Fond du Lac Reporter map by Ted Kremer)

"We worked for decades together. We covered a litany of storms and all the other events that come with the territory," Mentzer said. "When the devastating Oakfield tornado of July 1996 occurred, and when the flooding in June 2008 paralyzed Fond du Lac and the surrounding area, a staff of seasoned and novice reporters and editors carried on the traditions they've been trained to do. It's the job. Some things never change."

**Siren sounds 1st time for real emergency**

For emergency operations, the siren sounded for the first time in the county's history. The siren was tested in the past, but this time it was for a real emergency. The siren sounded at 10:15 a.m. on Sunday, June 12, 2011, when a severe weather system was moving through the area. The siren sounded for about 15 minutes.

**6 hurt in car accidents; not related to storms**

In persons were injured in six accidents in Dodge County Sunday. The accidents were not related to the severe weather. The accidents occurred in various parts of the county. The injuries were not serious.



**Award recipients**

**Wisconsin Press Women honor Reporter staffers**

Fond du Lac Reporter staffers were honored by the Wisconsin Press Women. The award was presented to the staff members for their outstanding work in journalism. The award ceremony was held in a local hall.

**KCs raise over \$5,000**

Local women at St. George's raised over \$5,000 for a local charity. The event was a success and the funds will be used for various community projects.

**Sheppard re-elected leader**

Mark Sheppard was re-elected as the leader of a local organization. He received a strong endorsement from the members.

**MORNING'S MOST INFORMATIVE ENTERTAINING**



**Real Estate Today**



**Transit manager announces 3 changes in bus routes**

Fond du Lac Transit Manager Richard Francis announced three changes to the bus routes. The changes are intended to improve service and efficiency.

**Picking up the pieces**

Mentzer said the staff of The Reporter spent the next several months writing about recovery and penning inspiring stories that surfaced of neighbors helping neighbors. "It's mind boggling to think 40 years have passed since then. I was just a kid — 25 years old," he said. "Fellow reporters Steve Sandberg and Harley Buchholz and I worked hours and hours on the story. In fact, we worked for weeks on it because the tornado damage was just the tip of it all. The impact on local residents went on for weeks and months and even longer for some who lost loved ones." Front-page editor Myron Faris experienced the brunt of the 1974 Oshkosh tornado from his car, according to Mentzer.

"Myron Faris, who was one of my sagest mentors, wrote a story about driving to the side of the road that Sunday afternoon near Oshkosh when the tornadoes hit," Mentzer said. "He crawled into a ditch as the storm raged over him. It was a great story and I was a bit in awe that he was right in the midst of it all. He was a lot older than me but he was right there in the wind, rain and mud doing what he had been trained to do."

Mentzer would work side-by-side with chief photographer Ted Kremer covering countless breaking news stories in the years that followed, including the drowning of two local residents in Fond du Lac's Dutch Gap.

"Years after the 1974 tornadoes I was there when he was swept through a Dutch Gap culvert under Main Street and emerged from the torrent with his camera held over his head," Mentzer said. "He was lucky to survive it." The crew of reporters, including Mentzer, Buchholz, Sandberg, editors Leon, Faris and Kremer would spend many of the next 40 years together gathering news.



**Tornado Siren**



### What are crystal oscillators?

Crystal oscillators are oscillators where the primary frequency determining element is a quartz crystal. Because of the inherent characteristics of the quartz crystal the crystal oscillator may be held to extreme accuracy of frequency stability. Temperature compensation may be applied to crystal oscillators to improve thermal stability of the crystal oscillator.

Crystal oscillators are usually, fixed frequency oscillators where stability and accuracy are the primary considerations. For example it is almost impossible to design a stable and accurate LC oscillator for the upper HF and higher frequencies without resorting to some sort of crystal control. Hence the reason for crystal oscillators. I won't be discussing frequency synthesizers and direct digital synthesis (DDS) here. They are particularly interesting topics to be covered later.

### A practical example of a Crystal Oscillator

This is a typical example of the type of crystal oscillators which may be used for say converters. Some points of interest on crystal oscillators in relation to figure 1.

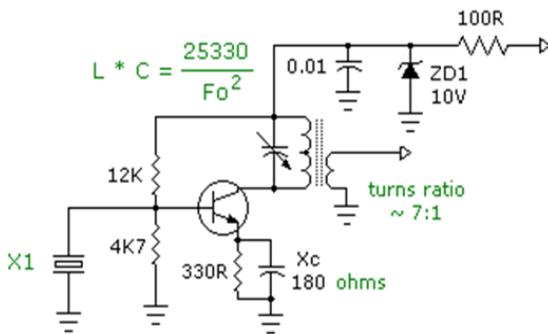


Figure 1 - schematic of a crystal oscillator

The transistor could be a general purpose type with an Ft of at least 150 Mhz for HF use. A typical example would be a 2N2222A.

The turns ratio on the tuned circuit depicts an anticipated nominal load of 50 ohms. This allows a theoretical 2K5 ohms on the collector. If it is followed by a [buffer amplifier](#) (highly recommended) I would simply maintain the typical 7:1 turns ratio. I have included a formula for determining L and C in the tuned circuits of crystal oscillators in case you have forgotten earlier tutorials. Personally I would make L a reactance of around 250 ohms. In this case I'd make C a smaller trimmer in parallel with a standard fixed value.

You can use an overtone crystal for the crystal and set L \* C for the odd particular multiple of overtone wanted in your crystal oscillators.

### What are buffer amplifiers?

What exactly is a buffer amplifier, what is its purpose in life?

This class of amplifier is designed to follow low level stages, one [example](#) is a crystal [oscillator](#). An oscillator for optimum performance can NOT be loaded down, it needs an intermediate stage following. This will then present a sufficiently high enough input impedance so it is not considered a significant load to the oscillator. The intermediate or buffer stage, while not representing a load must then have a sufficiently low output impedance to drive successive stages.

From what I said above, two desirable traits of a buffer amplifier are high input impedance and low output impedance. Obviously succeeding stages should also be linear because we don't want to introduce distortion.

As a matter of interest a buffer amplifier is not solely limited to following an oscillator. You could have a requirement of wanting to sample the output of the first mixer for what is called a "Panadapter", a means of visually seeing adjacent signals on an oscilloscope. Also a high quality agc system should be derived from the last i.f. stage, it should be buffered before going to the agc amplifier and then on to the agc detector.

Other examples are low level outputs of audio amplifier stages such as microphone inputs where the microphone is a high impedance type. Although not so common now, phono inputs to audio amplifiers also needed buffering.

### A practical example of a buffer amplifier

Here I'm going to use a very practical example where one of my readers has a requirement for a [voltage controlled oscillator](#) operating at 1.8 - 2.0 Mhz (amateur radio band 160M). This is to be part of a frequency synthesizer.

The design requirements were:-

- (a) frequency coverage 1.8 - 2.0 Mhz
- (b) voltage controlled by a frequency synthesizer with an output level sufficient to drive the input of a Phase Locked Loop (PLL)

(c) a further buffered output for a digital frequency readout.

(d) another buffered out put to drive succeeding amplifier stages.

We can look at two types of active devices for use in buffer amplifiers, FET transistors and bipolar transistors. Choice is largely a matter of opinion but more often it depends on what you have on hand. Bipolar types are referred to as "emitter followers".

Let's look again at our previous oscillator.

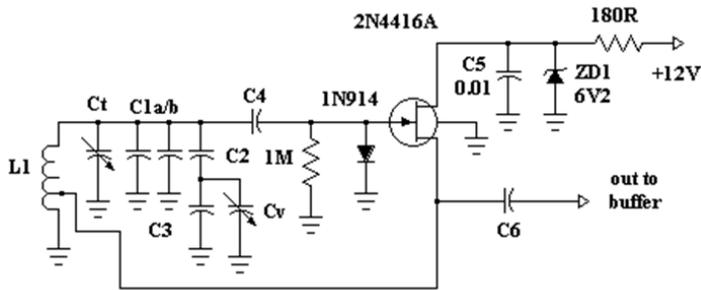


Figure 1 - schematic circuit of a hartley oscillator

Now it is considered bad practice to use the output of the oscillator to drive succeeding stages because in loading down the oscillator we cause frequency pulling and a host of other unwanted maladies.

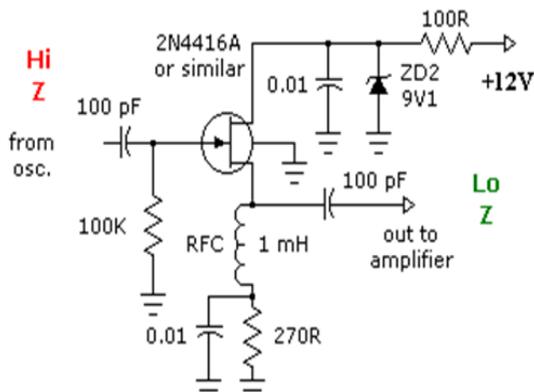


Figure 2 - schematic circuit of a FET buffer amplifier

That's about as basic as it gets. The FET represents a high input impedance (Z) but a relatively low output impedance. This buffer amplifier configuration, called a "source follower", is capable of high power gain, perhaps as much as 25 db BUT the voltage output would be only around 90% of the input which is a voltage gain of -0.5 dB (loss) Confused?. Look at it this way - consider an input signal of say 50 mV RMS. I've just said the output voltage is about 90% or in this case 45 mV, yet I spoke of Power Gain, in fact 25 dB perhaps. Assume for purposes of discussion only, that the input impedance is 100K or 100,000 ohms.

It follows that input power taken from the preceding stage is  $P = E^2 / R$  or  $[(0.05V * 0.05V) / 100,000]$  which equals 0.025 micro-watts.

If the output power available to the succeeding stage is assumed to be sourced from a relatively low 270 ohms source, albeit at a reduced voltage of 45 mV RMS, then our calculations are  $P = E^2 / R$  or  $[(0.045V * 0.045V) / 270]$  this equals 7.5 micro-watts.

It further follows that for 7.5 uW output after a 0.025 uW input there must have been a power gain of  $7.5 / 0.025 = 300$  which  $10 * \log(300) = 24.77$  or say 25 dB.

I am not saying this is the case. I am merely highlighting the capability and the basic underlying principles.

## Early Radio: Military Communications

MAJOR GUY MELOY:  
VIET "HERO BACK FROM HELL"

by EMILE C. SCHURMACHER

In post-battle rundown, Meloy described action. Wounded, he stayed in field, at one point commanding 11 companies.

It started as a skirmish-and then suddenly the sky caved in. For eight hours the blasting didn't let up. For eight hours there was nothing but solid lead. . . " And that was only the beginning for the Commander, 1st Bat., 27th Reg., 25th US Infantry Div.

It began in the jungles of Tay Ninh Province, 60 miles northwest of Saigon, last November 1st. Able Company of the First "Wolfhound" Battalion, 27th Infantry Regiment, 25th Division, stumbled into a Vietcong platoon of the 272nd Vietcong Division, the best trained and equipped enemy unit in South Vietnam.

Able traded bullets with the one platoon. The skirmish rapidly grew in numbers until, at the height of the battle, the battalion commander, Major Guy S. Meloy, 3rd, found himself leading eleven companies in one of the bloodiest actions of the war:

"Operation Attleboro."

How do these unplanned battles come about? What are the feelings of the GIs and their officers.

### HERO FROM HELL

This is the story of Operation Attleboro told by some of the men who lived through its hell.... Specialist Four Bill Harnack, 23 from Temple City, Calif., attached to Able Company, 1st Battalion, 27th Infantry "Wolfhounds":

We arrived in Dau Tieng and set up an operational base camp. Early the next morning, we began hacking our way through underbrush on a defensive security sweep. We weren't out too long when we came upon a deserted village. A fool could see that it had been occupied not long before we found it. We turned it upside down looking for VC, watching out for booby traps, but we found nothing. So we started out again and pretty soon we came to another village. This one had a fire still burning in it, and we knew that it was a VC base camp. I was on the left flank with the second platoon and about thirty meters ahead of the others. I was about halfway through the village when I saw a VC suddenly pop up out of a hole. Before I could do anything, he got me through the shoulder. Right after I was hit, three more VC came charging at me. I lifted my rifle and killed one of them, but the other two were coming at me fast and I thought I was a goner. Then a machine gun let go behind me, cutting them down. By this time Able Company was on line with me and raising Cain. The pain in my shoulder was terrible and a bullet had slid across the nail of my firing finger, so every time I pulled the trigger my whole body stiffened from the pain.

I never saw a jungle as thick as that and I've been in quite a few. The VC were creeping up on us from all over. By now the fire was so heavy that the trees were falling all around like bowling pins. The VC were still putting out a lot of fire, but my company kept pushing on. After awhile, the fighting where we were lulled, picking up elsewhere. I don't remember anything after that until about six that night. I had been put aboard medical evacuation helicopter, and began praying for my buddies back there in the jungle . . .

The battalion joined other units of the 25th Infantry Division and the 196th Light Infantry Brigade, shortly after the "Chargers" from the 196th removed more than 1,000 tons of rice from a jungle sanctuary. It soon became one of the bloodiest battles of the war in Vietnam -- Combat Correspondent PFC Danny Desmond, HQ, 25th Infantry Division, Cu Chi . . . .

Visibility in the jungle was limited to yards, sometimes to feet. Squads lost contact with their platoons, riflemen with their squads. Among those who became separated was Specialist Four William Johnson, 21, from Winter Haven, Florida, who describes the hell and uncertainty that followed:

My company was sent out on a sweep to push the VC into the 1st Battalion, 27th Infantry, that had been setting up blocking forces a few miles away. In late afternoon, we started drawing sniper fire, but the jungle growth was so thick around there that the rounds didn't come near us. Then, all of a sudden we were hit with automatic weapons fire from all sides, and we heard the VC from only about twenty meters away. There was nothing but confusion in that first minute or so. During that time my squad was split.

The fire was heavy and we had to lie flat. My squad leader was about fifteen meters from us. He called over and said to link up with him and the rest of the squad. I was with two other guys, and the company commander and the battalion commander was between us and our squad. We began crawling toward our men. We got about five meters when we ran into VC who were throwing grenades at us. There was nothing to do but find cover in a hurry and wait for help. A large tree had been chopped down by the heavy fire and I managed to get behind that. It turned out to be my home for the night. It was almost dark now, but the firing didn't slow down at all. I could see tracers flying all over, but I couldn't fire from where I was I just lay flat and thought of home all night long.

Later on the firing slowed down a bit. I could hear the VC back there among the trees. There were screams of pain

from their wounded, but some of those VC were laughing like crazy idiots.

When it got light, the firing started real heavy again and I realized I was hit. There was a lot of firing in the distance now, and I guessed that help was on the way. The only problem was whether they were going to reach us in time . . .

Following the first counterattack after darkness there were several others. The enemy also mortared two of our base camps, a tactic sometimes used by the Communists to divert the Allies from their preparations to mount a mass attack nearby

-- Report from 25th Infantry Division Headquarters . .

1ST Lieutenant David B. Price was advancing with Able Company to link up with the 1st Battalion when he found himself under attack. This was his experience:

Things had been going smoothly during our advance when suddenly we were hit. The VC waited until we were about twenty meters from them before opening up with more automatic and other weapons than I thought they had. Our first platoon was up front and took the brunt of the attack. They sized up what was happening surprisingly fast and regrouped for a counterattack. About 200 meters away, the 196th ran into the same thing. The 1st Battalion, 27th Infantry, was raising hell on the other side of Charlie Company which was caught in the middle. My company (Continued on page 58) (Continued from page 56) commander was a few meters behind me, shouting orders, but the fire was so intense it was hard for me to understand him. The VC were in bunkers as well as in the trees. We couldn't see them, so I fired my weapon into the trees hoping I'd hit one of them or make one move. After a few minutes I heard something in a tree about ten meters to my left and I fired three rounds into it. A VC fell to the ground. The only enemy we could see were the ones who were shot from the trees, and they were lying all over. We hadn't taken many casualties and the men wanted to rush the enemy line but that was impossible. The jungle was too thick to see beyond 25 meters. Later, fire lanes were chopped by the bullets. There were some paths in the area, but they turned out to be enemy fire lanes.

About three hours later, the firing from my rear became heavier. When I looked to see why, I saw the captain running toward the VC bunkers. He had M-60 machine guns blazing under each arm and looked like an ammo dump exploding. When the smoke cleared, one of the bunkers was destroyed. Sometime around then, I got hit . . .

The VC were caught in a pocket by the advancing Allied force. The enemy tried to open a route of retreat through the blocking 1st Battalion which was holding firm--

Report from 25th Infantry Division Headquarters ....

A wounded platoon leader described the action to Combat Correspondent PFC Doug Kearney:

First I heard them whooping and hollering and screaming; and then there were about a hundred of them coming at us through the undergrowth. They popped up out of their holes on line at a dead run for our positions. There were so many of them close together, they could have held hands with the men on either side of them as they charged us. All of a sudden machine gun and automatic rifle fire seemed to come from everywhere. The nearest VC were about fifteen yards away. The fire was real bad, especially on the left flank. We had been moving through those woods with one platoon on line, and the other in a trailing file. We had to bring the other

platoon on line, but the fire became so intense that the best we could do was form a crescent-shaped line. This formation kept the VC from outflanking us.

IT was around 3:30 when that first wave came at us. It was like I said they seemed to be everywhere. They had to run about twenty-five yards to get at us, but we stopped them cold about twelve yards away. They were dressed in new regular army uniforms with plenty of field gear. After we stopped that charge, the fire fight was the same as before, maybe a little heavier. Around 6:45 we heard that the 2nd battalion of the 27th was on its way, closing in behind the VC. When the men got the word, we all let out a big shout of "Wolfhounds!" Then another VC charge came at us. This time there were about 60 or 65 of them. We didn't dare fire our rifles, because we were afraid of hitting the men of the 2nd battalion on the other side of them. We had to use hand grenades to stop the attack.

Towards nightfall the VC finally fell back and we got a look at their bunkers. They were really dug-in and fortified with one-foot thick logs. They were so arranged that the fire came out about one foot off the ground. That night we could hear the wounded VC screaming and the rest of them laughing hysterically, like something as funny as hell was going on. It sure gave me a queer feeling. There they were in front of us in the dark, singing and dancing and carrying on. One crazy Charlie was out there somewhere by himself singing and throwing hand grenades in every direction. I wouldn't be surprised if he killed some of his own pals. Our medics were really great. Whenever you rose a foot off the ground, you'd get hit. But whenever anyone called for a medic, one of those guys would break cover, get up and run to help through all that heavy firing.

Three of Major Meloy's companies were taking heavy casualties. But so did the enemy--Report from the 25th Infantry Division Headquarters. One of the Viet Cong who participated in the assault was Rifleman Van Khvak, of the 272nd Vietcong Regiment. This was his experience, as translated by a South Vietnamese interpreter.

Several days before the start of the battle, American forces from the 196th Brigade had found one of our big rice caches, more than 1,000 tons in a storage area south of War Zone C. This was the biggest one they had discovered. It was enough to feed a whole VC division for 222 days. Our officers were greatly angered. They became more so when it was learned that one of the American companies was hunting in the jungle for other caches. When we were ordered to attack this company we did not know that there were large enemy forces in the surrounding area. We were told that we would meet with only light resistance, that the company hunting for the rice did not wish to fight. I was one of the many who believed this, until we engaged the company and then enemy reinforcements on November 1st. They fought like devils.

That night we launched an assault from the bunkers. I was in the second wave. It was very dark and the jungle was thick, except for the fire lanes. Our orders were to fire at anyone we saw or heard moving around in front of us, even at the risk of hitting some of our own men, because the enemy force had to be wiped out at all cost. I was wounded twice by machine gun bullets. The first one went into my right thigh; the second, into my left knee while I was falling down. I crawled to the stump of a tree and pulled myself up, so that my back rested against it, and tried to stop the bleeding. I managed to do so with the knee wound, but I could not attend to my thigh, and I lost much blood. I Sat there for a long time. Then I heard two soldiers approaching. "From the sound- of their voices I knew that they were Americans". I thought that they had been sent out to find and kill our

wounded, so I kept very still. They went by without seeing me. After awhile they returned carrying one of their own wounded. More hours went by. The sound of heavy firing had been moving slowly away toward the left. Then I heard soldiers approaching again. Americans. I do not know if they were the same two I had heard before, but this time when I lowered myself to the ground and pretended to be dead, they stumbled over me in the dark. One of them put his hand to my heart, felt it beating and said something to the other. They placed me on their litter and carried me toward their lines. It was then they discovered I was one of the enemy. I was sure that they were going to kill me. Instead I was evacuated by helicopter with their own wounded. . .

MAJOR MELOY LEADING 400 OF HIS RIFLEMEN THROUGH TAY NINH JUNGLES WHEN "ALL HELL BROKE LOOSE ". AMBUSH OF 1500 CHARLIES HIT MELOY. AUTOMATIC RIFLES MACHINE GUNS FIRING EIGHT SOLID HOURS ... MORE TO FOLLOW --

Press dispatch via Saigon.

Major Guy S. Meloy II, a 36-year-old Texan from San Antonio, is a West Point graduate, the son of a retired four-star general. Commissioned in June, 1953, he took command of 1st Battalion, 27th Infantry, on August 3, 1966. He already held the Silver Star, our nation's third highest award for valor, as well as a Purple Heart with oak-leaf cluster, Army Commendation with oak-leaf cluster, Vietnam Service Medal, Master Parachutist Badge and Ranger Tab. This is his description of the battle:

What did it sound like when it started? Well, the only thing I can compare it to is the 'mad minute.' The Infantry School at Fort Benning has a problem where we try to show young lieutenants just what fire power an infantry company has. Every weapon in one whole company is fired at the same time for one whole minute. The din is deafening. All I can say is, when it started, this battle was at least as loud as the mad minute, only it didn't let up for about five or six hours.

The 1st Battalion of the 27th was alerted on November 1. That same day we had established a camp at Dau Tieng. The next day we spent "eagle flighting" along the fringes of this jungle canopy never before entered by Allied forces.

On the third day we were to enter the jungle about two-thirds the way up this particular section and establish a blocking force across it on the east-west trail. We would trap the VC flushed by two battalions of the 196th Brigade, the 4th Battalion, 31st Infantry- coming up east of the main north-south trail-and the 3rd Battalion, 21st Infantry, coming up on the west side. I dropped my Bravo Company in way up in the northeast with twenty Hueys (Continued on page 60) (Continued from page 58) and watched to see what would develop. Nothing happened, so I went ahead and put my Charlie Company in up in the northwest, holding Alpha Company in reserve. Pretty soon, Charlie Company was in one hell of a fight. There was absolutely no indication it was going to happen. All of a sudden the sky fell in. For eight hours it didn't let up. For eight hours you couldn't hear yourself think or talk. For eight hours it was nothing but solid lead. Where the VC got all the ammunition, I've got no early idea. I still didn't know what I had in there and I was reluctant to call in my reserves. One of the worst mistakes an infantry commander can make is to call in his reserves prematurely. If you do, you've shot your bolt-there's nothing left. I finally determined I was facing about a reinforced company, so I called in my reserves and drove the VC back. Both of my companies were tired and we had a lot of wounded, but my battalion surgeon was out there doing a simply magnificent job.

We had Alpha Company of the 2nd Battalion, 27th Infantry, coming in to provide security while we evacuated our wounded. We got the wounded out all right and then spent a sleepless night watching our perimeter.

The next morning we brought the 4/31st down from the north, some other companies of the 196th Brigade in from the east, and dropped Company C of the 2/27th in the middle of our little box. I hoped to move this box in toward the center and trap the VC.

But problems kept popping up. As soon as I started to move, my four-company force ran into an estimated VC regiment. We had the infantry school solution of point and flank security, and I'm sure if we hadn't, we would have been wiped out. The VC opened fire at a range of less than twenty yards with a higher proportion of automatic weapons than I've ever heard of a VC unit having before.

Company C of the 2/27th, in the middle of our little box, was cut off and pinned down in a savage fire fight. The other elements of our box each had their own fire fight. I knew I had to rescue this stranded company, so I started maneuvering the others. Every time I sent a company out, they took casualties from the numerous enemy machine gun bunkers and I had to pull them back. I tried the direct route. I tried going a three-quarter circle route the other way, and I tried again at night . . .

SIX TIMES THE RED SOLDIERS LAUNCHED HUMAN WAVE CHARGES YELLING AND SCREAMING ABOVE THE CRACKLE OF BULLETS...MORE TO FOLLOW -

Press dispatch from Saigon. . .

A Wounded G.I. from surrounded C Company told his story to Company correspondent PFC Doug Kearney:

Charlie must have known we were coming, because as soon as we got within fifteen yards of the jungle he began hitting us with every damn thing he had. We had good concealment in the chest high bush but there was nothing solid to provide any real cover. The VC couldn't see us, so they just filled the air with bullets. We were in the same predicament so we just did the same.

The VC were firing from the trees and from foxholes reinforced with thick logs. I was up close to the woods when a sniper in a tree shot down at me. The bullet entered my chest right over my heart, but because of the angle, it traveled down my chest instead of into my heart. This knocked me out of action, but because of the heavy fighting I couldn't be evacuated for hours. . .

When C Company, 2/27th was completely isolated it came under the fire both of the VC and elements of Major Meloy's forces trying to link up with it. Major Meloy found himself in a command of 11 companies, more than twice as many as his staff and communications were equipped to control in a tense combat situation - Report from HQ of U.S. Commander, Gen. William C. Westmoreland. . .

Unable to get to C Company, Major Meloy established radio contact with a PFC who had taken temporary command: I spent the whole night talking to a young Specialist Four, whose name I didn't know. He had taken charge of the isolated company. He was scared out of his wits, but he kept that company organized and followed my instructions. All night long the VC were probing his perimeter trying to find his exact location. I told to pull his perimeter in tight and not to fire at all unless I gave him the OK. Because he kept his men from returning fire, the VC were never able to pinpoint his location and therefore didn't attack in force. He had a lot of guts, that fellow, for taking on all that responsibility.

During the opening minutes of the battle, the battalion and company commanders became casualties. The young radio telephone operator (RTO) Specialist Four William Wallace, had the only source of communications with higher headquarters. Through radio communications with Major Meloy, Wallace held the company together and enforced strict fire discipline to avoid revealing the company's position to the enemy. Throughout the night, Specialist Wallace offered encouragement to the men and aided the wounded-Report from HQ, 25th Infantry Division. . .

Wallace had not been assigned to C Company. For the past few months, the 23-year-old PFC from Oceanside, L.I., New York, had been in the battalion headquarters as the commander's radio operator. When the unit moved forward the commander was killed by machine gun fire, and all other officers except two lieutenants killed or severely wounded. This is Wallace's story:

One lieutenant was forward of me and another was behind me somewhat. But no one could move an inch in any direction. I was scared I couldn't think. It was like a nightmare. Major Meloy contacted me by radio. He was somewhere on the other side of a VC company with at least four heavy machine guns. He had been trying to get to us with relief troops, but the VC kept pushing them back. He told me not to return the enemy fire and hope the VC would not be able to find us in the darkness.

The discipline of the men of C Company was fantastic. There was firing all around us and not one of the guys fired a return round. Major Meloy and other officers kept talking to me and at intervals I pushed away the mouthpiece of the radio and passed on their directions and encouragement to the men. Sometimes, during the lulls, I prayed and fingered the gold St. Joseph's medal inscribed "My trust is in you ... Dec. 25th, 1965," that my wife had given me. At times I really didn't think I was going to make it. We were all scared. I was never scared like that before for such a long period. For 21 hours, we never knew what was going to happen from one minute to the next. When some of Major Meloy's elements finally got to us I almost cried with joy . . .

At daybreak relief troops started inching toward the isolated company. Two companies finally reached it. But it took them four and a half hours to get back through the enemy positions to a safe landing zone where helicopters could evacuate the wounded - Report from HQ, 25th Infantry Division . . .

Major Meloy was dogtired after more than 30 hours on his feet, and his right arm was bleeding from a shrapnel wound. He continued his story:

It was noon when I got this stranded company linked up with the forces I had up in the northwest corner of the box. Getting them out to my location was another problem. The path they eventually took, instead of directly southwest, was a circuitous route north, then west, then south. It was time to break contact and bring all the firepower we could get--airstrikes and artillery. I grouped my companies together and started withdrawing, slowly, around 3:45 in the afternoon. I left my Bravo Company upfront, because they had suffered the least casualties, and started moving back 25 meters at a time, always keeping the artillery 25 yards away covering our withdrawal. Every time we tried to lift the artillery the enemy was right back with his full intensity of fire. The artillery had no apparent effect on him at all, at the time, but we know now we were killing a hell of a lot of Charlies. When I was finally ready to withdraw the last company, I didn't tell Bravo Company to move until the artillery rounds had already been fired just on top of their location. And then we blew hell out of the place . . .

Major Meloy was unable to see more than five yards through the thick underbrush but, judging the range by the sound, he walked the artillery toward himself -

Report from HQ, 25th Infantry Division . . .

The artillery support was supplied by Battery A, 1st Battalion, 8th Artillery, commanded by Captain John R. O'Donnell, with Captain Bartholomew J. McIlroy acting as liaison officer with Meloy. Nicknamed the "Automatic Eight" for its terrific fire power, it laid down its barrage with no margin for error from a forward position north. This was the action as reported by Combat Correspondent PFC Andy Jensen:

When Major Meloy called for the support he got it at the rate of more than four rounds a minute. The artillerymen began firing and four hours later they had expended more than 1100 rounds. The supporting artillery was so accurate and devastating that a lull in the fighting allowed helicopters to come in and pick up the wounded. When night fell on the encircled company, they dug in to the sound of protective artillery fire. The 8th Artillery continued to fire throughout the night to keep the VC from advancing. The following morning, elements of the 2nd Battalion were helii-lifted into reinforce the beleaguered company. As the battle raged on the second day, the artillery was once again called in-with pinpoint accuracy. As the units moved forward, the artillery fire kept the Vietcong pinned down and cut off from any support from the rear. When time for withdrawal came, the artillerymen provided cover fire while the infantrymen were being pulled back. At the end of the two-day ordeal, one battery of the 8th Artillery had fired for 12 hours straight. . .

As the wounded were being evacuated the "rice hunt," which had touched off the fighting more than five days before, was resumed. . .

Pushing forward against the decimated forces of stubbornly resisting VC, Meloy's reinforced elements discovered that the enemy had been fighting to defend a central cache of arms as well as food. In bunkers and tunnels, U.S. infantrymen seized one of the biggest hauls to date: two million pounds of rice, eighty rocket launchers, 25 machine guns, 481 Claymore-type mines, rifles, pistols, oil, clothing, 116 bicycles, and 23,000 Red Chinese grenades of which over a thousand were loaded with tear gas.

Here and there, they continued to meet dogged resistance. One heavy machine gun, manned by a single VC, held them up until Specialist Four Kirk James, 26, from Brooklyn, New York, crawled 50 feet through the underbrush until he was parallel with the enemy gunner and knocked him out with a shotgun blast.

Captain Robert F. Foley, commanding Company A of the 2nd Battalion, was leading his men toward one of the caches when they met a pocket of VC armed with automatic weapons, carbines and rifle grenades. A machine gunner near Captain Foley was wounded. He picked up the wounded man's machine gun, led an assault to within 10 yards of the enemy position and continued firing until he himself fell wounded . . .

Despite these pockets of resistance our forces routed the enemy, compelled the VC to withdraw and seized the caches of food, arms and other supplies

- Report from HQ, 25th Infantry Division . . .

This is what happened next, according to Lieutenant P.J. McKeand:

It was like bargain day at Macy's as the infantrymen raced up to the first cache and began carrying the rice and other supplies out to the landing zone for evacuation to their Tay Ninh command post. They quickly located a second cache, then a third and a fourth. They discovered the area was a huge VC "supermarket" loaded with rice and salt and other free bargains waiting for the taking. And they did just that. By the end of the first day, the shelves had been cleared of more than 420 tons of rice. The shopping spree was extended another two days, to accommodate the GI bargain hunters. CH-47 "Chinook" helicopters had several field days, ferrying the goods back to Tay Ninh for distribution to the Vietnamese. The only interference during the shopping spree came on the second day when several disgruntled enemy "storekeepers" tried to retrieve their stock. After some were killed, the others decided to turn in their "time cards" and quit . . . .

Brigadier General George G. O'Connor, assistant division commander of the 25th Infantry Division, decorated Specialist Four William Wallace with the Silver Star in ceremonies held at the Tay Ninh base camp. Major General Fred C. Weyand commander of the 25th Division, hearing of Wallace's dream of becoming an Army pilot, said: "Anything I can do for that boy, I'll do. If he wants flight school, he'll get in."

-HG, 25th Inf. Div.

Both Major Meloy and Captain Foley were also awarded the Silver Star: the major for his personal courage and resourcefulness in holding his outnumbered and ambushed battalion together against heavy odds, the captain for single-handedly attacking an enemy bunker. The battle which had begun as a skirmish between the GIs of Able Company of the First "Wolfhound" Battalion and a VC lasted for five days.

When it was over, the VC, with 758 dead on the battlefield, knew they'd been licked . . . By GIs their leaders had told them "didn't want to fight."



## Avoiding “Juice Jacking” Attacks on Your Phone



### Juiced Up

With the convenience of being able to use charging stations, there also comes the convenience of manipulating it to steal data or transfer malware to connected devices. Stay away from public charging stations, use a power outlet, get a [USB charge-only cable](#) or device, or simply carry around your own charging methods to stop yourself from becoming a target.

Being caught out in public with a dead [phone](#) battery can be a hassle. Thankfully, some public places (such as airports) have set up charging stations which allow you to give juice to your dying device. Just plug in your [charger](#) cable, attach your phone, and you'll be charging in no time. Convenient, right?

Unfortunately, while convenient for you, it's also convenient for people with malicious intentions! These charging stations can be compromised in a way that accesses your [phone](#) without your permission. From here, it can either transfer malware onto the phone or steal data from it. This is the case of “juice jacking,” and it's a problem that will keep you from always trusting public charging stations when you see them.

### How Does It Work?



If you've ever plugged your phone into a computer using a USB cable, you'll notice it does two things. First, it'll charge the [battery](#) as if you plugged it into a power outlet. Second, you'll notice that the phone can share files and folders with the computer. The USB cable, in this scenario, works in two ways, both as a [charger](#) and a way to transfer data. This is what makes USB cables particularly attractive, as it can do two jobs at the same time.

When you're using a legitimate charging station via [USB](#), you're only using the first feature of USB cables – the charging. However, someone with malicious intent can make additions to the charging station in a way that uses the second feature – the data transfer. They use this untapped potential to either put malicious code onto your phone or drag data off of it. People plug in their phones thinking they'll only get a battery charge when in reality they're receiving far worse!

### Dodging a Juice Jacking Attack

So now you know what juice jacking is and where it can lurk. Now for the important bit: how do you stop a juice jacking attack from hitting your phone?

### Don't Use Public Chargers

As with most malicious attacks, the absolute best protection you can use is a sense of caution. Never use a charging station that requires a USB connection to charge. If you want to charge your [phone](#) on the go, simply use an AC adapter and plug it into a power socket when you find one. Juice jacking can't work through a power socket, so you'll have nothing to fear!

If you end up using a public charging station via USB and the phone asks if you want to mount the drive, never do so! Doing so will open up your device for data transfers by the station. Make sure your device doesn't automatically [mount](#) itself when plugged in via USB, either.



### Charge-Only USB Cables

If you really have to use a USB charging station while on the fly, you can use a [USB charge-only cable](#) instead. These cables cut out the USB's ability to transfer data over USB, so any malicious code within charging stations can't get at your phone. You'll receive all the benefits of a public charger without any of the risks that are involved alongside it. A good example of a charge-only cable is the PortaPow.



**USB Converter**

You can also get small devices that convert regular USB cables into charge-only ones which have the crude nickname of "USB condom." The idea is that you plug this into the port, then plug your USB cable into the device itself. The device prevents data from being transferred, so you can charge your phone without having to worry. A good example of such a device is the SyncStop. There's even a guide **on how to make your own!**

**HOW TO CREATE A TINY USB CONDOM (V2)**

This guide will show you how to create a tiny USB condom to protect your electronics while they charge. It's small enough to use as a keyring, and is perfect for when you need to charge a device on an untrusted computer or public charging station. It physically removes the data pins, so only power, and not malicious data can get through.

- PARTS - Female USB socket - Male USB plug
- TOOLS - Soldering Iron - Needle-nose pliers - Mini hacksaw - Hot glue gun - Super glue - Cutters

**HOW-TO GUIDE**

- Step 1. Use the pliers to remove the two middle pins from the socket and plug.
- Step 2. Remove the plastic insert from the socket and cut it down to size like this.
- Step 3. Put the newly chopped plastic insert back in the socket and super glue it in place.
- Step 4. Bend up the two pins on the socket and add some big blobs of solder on them
- Step 5. Remove the remaining two pins from the plug and set them aside. Now take the hacksaw and cut the plug where you see the ridge in the shielding
- Step 6. Clean it up, then re-insert the two pins. Cut and bend them so they are flush when pushed up to the socket.
- Step 7. Solder the two parts together.
- Step 8. Add some glue with the glue gun so that the pins don't short out on the shielding.
- Step 9. Weld the shielding of the plug to that of the socket. It doesn't matter if it's not perfectly square.
- Step 10. You now have a tiny USB condom to protect your electronics. I added a little keyring attachment to mine so that I always have with me.

-- BY NODE  
**Personal Chargers**

If you want to take matters into your own hands, you can carry around a personal [charger](#) or portable battery. When you're running out of charge, simply plug your phone into one of these and you'll be back in action in no time. It also comes with the added benefit of not having to frantically hunt for a power point as your phone slowly dies on you!

**Next Regular Meeting**

The next meeting will be on **Thursday, April 27th, 2017**, 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 25th, 7 pm, Club Auction Night**

**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](http://www.w9rh.org)

**Or phone (414)-459-9741**

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

## VE Testing:

April 29th, 9:30am— 11:30am

**No testing: June, August or December**

**ALL testing takes place at: Ham Radio Outlet 5720 W. Good Hope Rd. Milwaukee, WI 53223**

## Area Swapfests

May 6th, [ORC Spring Swapfest](#) Location: Cedarburg, WI  
**Type:** ARRL Hamfest **Sponsor:** Ozaukee Radio Club  
**Website:** <http://www.ozaukeeradioclub.org>

May 7th, [The DeKalb Hamfest](#) Location: Sandwich, IL  
**Type:** ARRL Hamfest **Sponsor:** Kishwaukee ARC  
**Website:** <http://karc-club.org>



## MRAC Working Committees 100th Anniversary:

- Dave—KA9WXN

### Net Committee:

- Open

### Field Day

Dave—KA9WXN, Al—KC9IJJ

### FM Simplex Contest

- Joe – N9UX
- Jeff – K9VS

### Raffle

- Tom – N9UFJ

### Newsletter Editor

- Michael-KC9CMT

### Newsletter Proofreader

- Pancho– KA9OFA

### Webmaster

- Dave, KA9WXN
- Dale, AB9DW

### Refreshments

- Open



Welcome

## 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@arri.net](mailto:w9rh@arri.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)

## 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: [W9rhmrac@Gmail.com](mailto:W9rhmrac@Gmail.com)

or by Post to:

Michael B. Harris

807 Nicholson RD

South Milwaukee, WI 53172-1447

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

Mon. 8:45 PM 147.165- ARRL Audio News

Mon. 8:00 PM 442.875+ WIARC net also on EchoLink 576754

**Mon. 8:30 PM 146.820 Waukesha ARES Net —**

**on the 1st, 3rd, and 5th Monday of each month.**

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

Saturday Night Yaesu Fusion Net 7:00 P.M., W9RH Repeater, C4FM digital mode, using "DN", digital narrow mode

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 28.365Mhz 10/10 International Net

Daily: Milwaukee — Rag Chew Net: 7:00 AM, 3850 SSB + Florida Net 7 am, 14.290 mhz.

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

SSB frequencies below 20 meters are LSB and for 20 Mtr and above are USB.

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

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

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

Thur. 8:00 PM 443.800+ Tech 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. 7:30 AM MW Classic Radio Net , Freq.—3885 AM

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

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

Sun 8:00 AM, State ARES Net 3967/3977.5/145.470

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

**Minnesota/Wisconsin Yaesu System Fusion, Wires-X Technical Net.**  
Monday Evenings 7:30 P.M. Local Time.

### Sponsored By

**BARS -Bakken Amateur Radio Society.**

**Where: On the MRAC repeater,  
145.390MHz, Offset -600KHz, PL Tone encode of 127.3.**

**The Net is carried via a RF Node Link to Wires-X Room (21493) .**

**The net is held in the Digital Narrow (DN) mode.**