HAMATEUR CHATTER

The Milwaukee Radio Amateurs Club

February 2011, Volume 19, Issue 2

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

Presidents Letter

February is a busy month for MRAC activities. First on Sunday Feb 13 was the FM Simplex Contest. This current contest has been running since 2003.
There were VHF contests back in the 1950's (interestingly also for a couple of hours and on a Sunday). Did you operate, even for a few minutes?

Then at the end of that very same week, Saturday Feb 19 is the first MRAC / MAARS Hamfest. This is not the first Hamfest type activity MRAC has been involved in. Here are just some of our past fest type things:

1926 - Badger Ham Roundup

1928 - ARRL Central Division Convention

1940 - Wisconsin ARRL Convention

1948 - ARRL National Convention

1967 - ARRL Central Division Convention (with West Allis Amateur Radio Club and Menomonee Falls Radio Club)

Field Day. Well, thanks for sitting on your hands as far as getting a Field Day committee together. You may be sorry you did not get involved. Why? Well as we get closer to June you will find out.

At the January meeting we discussed and voted on changes to the by-laws mainly for changes in elections, officers, board, annual meeting, and related along with putting back a Student membership and some general clean-up in later paragraphs dealing with activities. I realize some people were not happy with the change which makes elections for directors only who then pick officers from the elected directors (not from the general membership, see elsewhere in this issue). I don't know if that is a good idea, but the club operated that way from 1917 to 1951. Unfortunately I can't find anything in the archives which could shed some light on why it was changed.

As for how it impacts the current board. There are no real changes until 2012 when the current officers terms expire. The big change this year is instead of having an election at the May meeting it will happen in April. This year 3 Director positions are up for election (HINT: want to run? How about someone you think should run?). That does not change. Next year, 4 directors will be elected and those 7 people will pick officers from among those 7. The concern about not being able to elect a President directly should not be a concern as the membership elects the directors, one of which (hopefully) becomes President. Not someone who did not get elected, from one of the elected directors. Likewise one director becomes VP, one Secretary, one Treasurer. The other 3 are "just" directors. Not all that different from now. Now that the change was made, I'm through with any political junk for the rest of my term. I thank all who waded through this stuff. After all we are a radio club, not a political science club.

February also starts a new run of very interesting programs for the club.

This month is Fox Hunting (hidden transmitter hunting) by someone who has a great deal of experience in the subject, Paul WB9ODQ. Did you know there is a fox hunt competition held at Superfest? Paul is the guy who usually coordinates it. Next month, March is the return of Gordon West for his third appearance at an MRAC meeting. For his other appearances we had attendance of 71 and 53. I wonder how we will do this time? I guess that depends on you, the membership. If you have any interest in the club, you should be spreading the word about the club. Not one or two people, ALL members. Now's a good time to talk it up.

If that isn't enough for you, how about some pancakes? Last year MAARS had a pancake breakfast at a person's house to raise money for their repeater.

This year they asked us to join in (and bring the Church basement and kitchen) and we said sure. Saturday March 19 at our normal meeting location (Redemption Lutheran Church basement).

MRAC Officers:

Terms Expiring in 2012

- President – Dave,WB9BWP
- V-President– Vacant
- Secretary – Mike, KC9CMT
- Treasurer – Vacant
- Director – Mark, AB9CD
- Director – Dave,KA9WXN

Terms Expiring in 2011

- Director – Al, KC9IJJ
- Director – Hal ,WB9OZN
- Director – Vacant

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

(414) 332- 6 7 2 2

Visit our website at:

www.w9rh.org

Mail correspondence to:

M. R. A. C.

P.O. Box 240545

Milwaukee, WI 53223

But I will continue to prod people to get involved. To do STUFF.

Remember, WE DO RADIO (when we are not doing STUFF).

Finally, the seemingly regular portion of my column, members recently passed. January found Dick Scarvaci K9CAN joining his father John W9GIL in the SK auxiliary of the club. Dick was famous in MRAC for becoming the youngest life member of the club (before there was a minimum age for Life Members). He joined the club in 1956 at age 14 and became a life member in 1976. Dick did not attend any MRAC meetings since the early 80's I think partially a result of some political turmoil of 1980 which directly affected a good friend of his father. Also living in Grafton is a good reason. He did attend a Christmas party about 10 years ago with his father (just before he passed I believe).

Upcoming Elections & Club Direction

By Dave DeFebo, WB9BWP

Well we did some political/administrative stuff at the January meeting with some by-laws changes. For the second time during my membership there has been a lot of discussion and a number of dissenting votes. I don't know for sure but there may be some misunderstanding about just what the changes really mean.

Based on the changed bylaws, here is what is supposed to happen.

1 - Starting this year elections will move to April.

2 - Since last year officers were elected to 2 year terms, they remain until 2012. This year there will be the normal elections for 3 directors for 2 year terms.

3 - In April 2012 there will be an election for 4 directors.

4 - At the May 2012 board of directors meeting, the 7 current (at that time) directors (4 just elected and the 3 elected this year) will choose the 4 officers FROM AMONG THEIR MEMBERSHIP ELECTED RANKS. They will not choose officers from the general membership or any other group. They will not choose officers from anyone who was not elected by the membership unless there is no one for a particular office (which gets filled as now, by appointment). I emphasize this as some people felt they would not be electing a President. The membership will elect 7 directors, 4 of whom will become President, VP, Secretary, Treasurer. Also since the May board meeting is to be attended by outgoing and incoming board members, there could be up to 4 outgoing board members who would actually be acting as observers to the officer selection process.

5 - At the June 2012 club meeting, after my starting the meeting (as the outgoing President, unless you throw me out sooner), I will turn over the meeting to the new President (who was elected to the board by the membership). By the way, that new President will not be me (proving, I have not been trying to become almighty ruler of MRAC).

Again, this was the process the club followed for it's first 34 years. It is also a process some other organizations I know of in the area (not amateur radio related) follow.

Now if this whole process ends up not working, the board at that time is welcome and encouraged to change the bylaws either back to what they were or to something else. Why is this being done? Because you are not running for office.

All this is an effort to carry the club on into the future and to help it exist for another 94+ years. After all, the club is not about one or two members. It is about all members.

Next Regular Meeting

The next meeting will be February 24th at 7:00PM. We meet in the Fellowship Hall of Redemption Lutheran Church, 4057 N Mayfair Road. Use the south entrance.

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 **8:30 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) 332-MRAC or 332 - 6722

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 at:

Michael B. Harris

807 Nicholson RD

South Milwaukee, WI 53172-1447

Club Repeater, 145.390Mhz Minus Offset (127.3 PL)

Board of Director's Meeting Minutes

Meeting called to order at 7:07 PM by President Dave DeFebo, WB9BWP.

Present: Dave, KA9WXN Mark, AB9CD, Dave DeFebo, WB9BWP Michael, KC9CMT, Al, KC9IJJ.

Absent: Hal, KB9OZN

AL, KC9IJJ made a motion to accept the minutes of the last meeting as published in the HamChatter, seconded by Dave, KA9WXN. Accepted by a vote of 5-0

Treasurer report not read. Club has no treasurer.

PRELIMINARY DISCUSSIONS:

MRAC will have a table at the AES SuperFest again this year. SuperFest runs during the first weekend of April. Table locations discussed for all the other clubs that will be present at the SuperFest.

Some problems have been reported on the repeater as of late. Dave DeFebo, WB9BWP has been dealing with this matter.

Old Business:

History DVD's will be updated and made available for the AES SuperFest.

Xmas Party Report: 25 people were present at the clubs combined Christmas party. Xmas party was staged at a loss of $20 per club. Suggestion made to not have the party in December by Dave, KA9WXN. Could have party in February in 2012.

New Business:

SwapFest: February 19th, 2011 will be the date of the MRAC/MAARS interclub first annual Swapfest. Flyers have been printed along with tickets and sales of advance tables is progressing according to projections. Discount tables will be offered to other area clubs.

Volunteers: Need volunteers for group activates such as Field day, AES Superfest table staffing etc..

Field Day: Dave, KA9WXN might have a new location for our Field day. It has been suggested many times that pioneer village is too far away. The new location scouted was the Greenfield Fire station grounds. Bathrooms are available on site. Still looking at this time for a field day captain to step forward.

New Committees:

Dave KA9WXN, has talked to AES about running a special event station at their business location to coincide with our clubs' 95th anniversary in 2012.

Net Committee:

John KB9SXH and Poncho KA9OFA, have been running the 2 meter and 10 meter nets that the club offers.

Misc: A pancake breakfast has been proposed and approved by the Board of Directors to take place at the Club's meeting location on March 19th. John KB9SXH will be putting this together for the MAARS group.

Field day is on June 25th and 26th this year before the regular club meeting.

State forms of Incorporation need to be filled out and sent in this month.

Club insurance is due at the rate of $320. This needs to be paid out of the treasury by February 11th. The cost is based on the number of members projected to be in the club this year.
Dave, KA9WXN will be running the club station again this year strapped to the Capitol Drive WISN transmission towers and using his HT and pencil and paper to record contacts. We all hope he dresses warm. I'm told he will be strapped into a tower climbing harness at a height of 642 ft. Rules state that if he breaks his pencil lead he can only sharpen it by using a pocket knife. Good Luck Dave!

Programs:

February: Paul WB9ODQ, will present a program on Fox Hunting.

March: The Gordon West Show. Gordon West Will present a program in advance of the next days opening of the AES SuperFest.

April: Show & Tell Night. Fix ups Etc.. Projects or New Purchases from the Membership. Election of new Board of Director members.

May: The annual Auction. Hosted by Dave DeFebo.

Motion to adjourn at 8:55 PM . Motion made by Dave WB9BWP, Second by Michael KC9CMT. Passed by a voice vote of 5-0.

Room returned to condition as found upon arrival.

Respectfully submitted,
Michael, KC9CMT

Membership Meeting Minutes

General Membership assembly called to order at 7:03pm by president Dave DeFebo, WB9BWP.

Mic sent around the room for introduction of membership.

Dave, KA9WXN announced the FM Simplex contest that will be run on Sunday afternoon, the 13th of February, starting at 2pm.

Joe, N9UX came in later and discussed more about the Simplex contest that he is sponsoring.

SwapFest for February 19th has been announced as a go, and volunteers have been asked for from both sponsoring clubs, MRAC & MAARS. A volunteer sheet was circulated at the open meeting.

Poncho states that he needs help with the ten meter net due to QRM.

Everett, K9PSX brought a ultraviolet camera mounted on a monitor and based the same around to the group. It was very interest to actually see the signal that the remote control was sending out to the monitor. Well done Everett.

Minutes of October accepted as printed in the chatter. Motion made to accept by Mark AB9CD. Seconded by Al KC9IJJ.

Discussion and vote on change to club by-laws proposed by club president Dave DeFebo, WB9BWP.

Vote and Discussion of by-law changes:

Changes proposed:

1. adding of two more classes of membership, student members & associate members. Club will now have six classes of members.
2. Change to number & term of office article. Changing from 9 to 7 director positions.
3. Change to election, installment & terms. Group of new directors elected each year to serve a two year term of

Membership Meeting Minutes Continued

4. Annual election meeting to change to April.

5. Roster to be printed each year instead of by-yearly.

6. Article on club activities rewritten to not mention actual club standard functions.

Comments were fielded from Ted Stiller, WA9RDI & Charlie, KC9CEQ. Charlie proposes having two sets of by-laws. Ted commented on not being able to vote for club president as being a liability to the club.

Michael, KC9CMT attempted to explain in general the reason for the club changing of the by-laws.

Motion made by Mark, AB9CD to accept changes to by-laws by a hand vote. Motion seconded by Charlie, KC9CEQ.

Hand vote taken, 13 members to accept changes as stipulated, 5 members opposed to changing the by-laws. Motion passes by a 13 to 5 vote.

Membership Technical Question Section of Meeting:

Electronic schematics, arrow direction of current vs. current direction. Parts are all different, hobbyist must get to know parts that he is using to differentiate the proper alignment of the part in the circuit.

Hobbyists should be concerned only with conventional current flow not electron current flow.

Isolation transformers are used to isolate the devise from the current mains.

How to drill Plexiglas type materials. Special drills can be purchased to drill these very brittle types of materials.

General information:

Club badge ordering offered for the last time in the foreseeable future by Mark, AB9CD.

Election of new directors will take place at the April meeting starting in 2011.

Meeting adjourned at 8:50 PM. Motion to adjourn made by Mark, AB9CD, and Seconded by Charlie, KC9CEQ.

Raffle table items and refreshments were available after the meeting.

Respectfully Submitted,

Michael, KC9CMT

Winter Weather Outlook

NOAA: Another Winter of Extremes in Store for U.S. as La Niña Strengthens

The Pacific Northwest should brace for a colder and wetter than average winter, while most of the South and Southeast will be warmer and drier than average through February 2011, according to the annual Winter Outlook released today by NOAA's Climate Prediction Center. A moderate to strong La Niña will be the dominant climate factor influencing weather across most of the U.S. this winter.

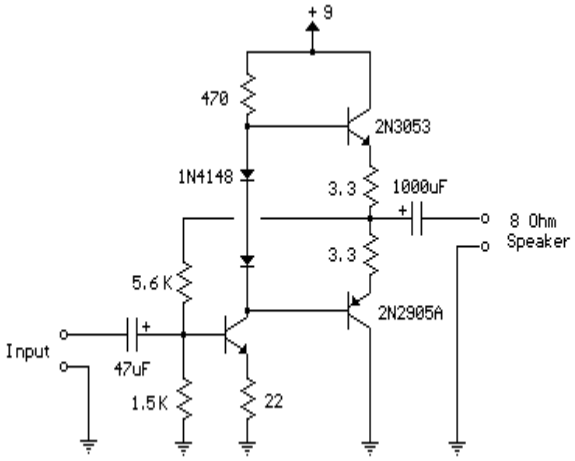
La Niña is associated with cooler than normal water temperatures in the Equatorial Pacific Ocean, unlike El Niño which is associated with warmer than normal water temperatures. Both of these climate phenomena, which typically occur every 2-5 years, influence weather patterns throughout the world and often lead to extreme weather events. Last winter's El Niño contributed to record-breaking rain and snowfall leading to severe flooding in some parts of the country, with record heat and drought in other parts of the country. Although La Niña is the opposite of El Niño, it also has the potential to bring weather extremes to parts of the nation.

"La Niña is in place and will strengthen and persist through the winter months, giving us a better understanding of what to expect between December and February," said Mike Halpert, deputy director of the Climate Prediction Center – a division of the National Weather Service. "This is a good time for people to review the outlook and begin preparing for what winter may have in store."

"Other climate factors will play a role in the winter weather at times across the country," added Halpert. "Some of these factors, such as the North Atlantic Oscillation, are difficult to predict more than one to two weeks in advance. The NAO adds uncertainty to the forecast in the Northeast and Mid-Atlantic portions of the country."

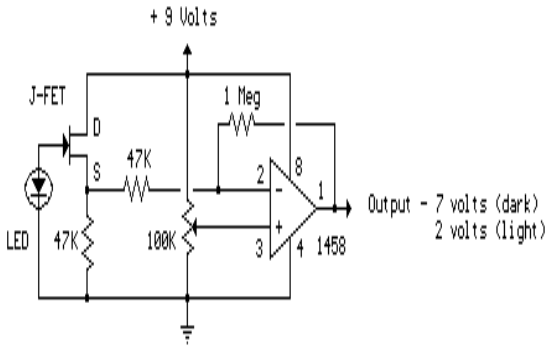
3 Transistor Audio Amp (50 milliwatt)

Here is a little audio amplifier similar to what you might find in a small transistor radio. The input stage is biased so that the supply voltage is divided equally across the two complimentary output transistors which are slightly biased in conduction by the diodes between the bases. A 3.3 ohm resistor is used in series with the emitters of the output transistors to stabilize the bias current so it doesn't change much with temperature or with different transistors and diodes. As the bias current increases, the voltage between the emitter and base decreases, thus reducing the conduction. Input impedance is about 500 ohms and voltage gain is about 5 with an 8 ohm speaker attached. The voltage swing on the speaker is about 2 volts without distorting and power output is in the 50 milliwatt range. A higher supply voltage and the addition of heat sinks to the output transistors would provide more power. Circuit draws about 30 milliamps from a 9 volt supply.



LED Photo Sensor.

Here's a circuit that takes advantage of the photo-voltaic voltage of an ordinary LED. The LED voltage is buffered by a junction FET transistor and then applied to the inverting input of an op-amp with a gain of about 20. This produces a change of about 5 volts at the output from darkness to bright light. The 100K potentiometer can be set so that the output is around 7 volts in darkness and falls to about 2 volts in bright light.



Improved 3 Transistor Audio Amp (80 milliwatt)

This circuit is similar to the one above but uses positive feedback to get a little more amplitude to the speaker. I copied it from a small 5 transistor radio that uses a 25 ohm speaker. In the circuit above, the load resistor for the driver transistor is tied directly to the + supply. This has a disadvantage in that as the output moves positive, the drop across the 470 ohm resistor decreases which reduces the base current to the top NPN transistor. Thus the output cannot move all the way to the + supply because there wouldn't be any voltage across the 470 resistor and no base current to the NPN transistor.

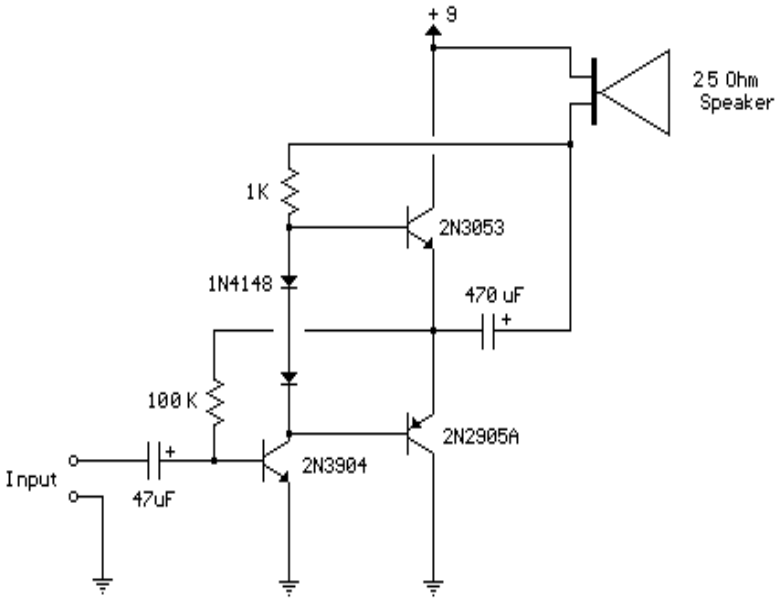
This circuit corrects the problem somewhat and allows a larger voltage swing and probably more output power, but I don't know how much without doing a lot of testing. The output still won't move more than a couple volts using small transistors since the peak current won't be more than 100mA or so into a 25 ohm load. But it's an improvement over the other circuit above.

In this circuit, the 1K load resistor is tied to the speaker so that as the output moves negative, the voltage on the 1K resistor is reduced, which aids in turning off the top NPN transistor. When the output moves positive, the charge on the 470uF capacitor aids in turning on the top NPN transistor.

The original circuit in the radio used a 300 ohm resistor where the 2 diodes are shown but I changed the resistor to 2 diodes so the amp would operate on lower voltages with less distortion. The transistors shown 2n3053 and 2n2905 are just parts I used for the other circuit above and could be smaller types. Most any small transistors can be used, but they should be capable of 100mA or more current. A 2N3904 or 2N3906 are probably a little small, but would work at low volume.

The 2 diodes generate a fairly constant bias voltage as the battery drains and reduces crossover distortion. But you should take care to insure the idle current is around 10 to 20 milliamps with no signal and the output transistors do not get hot under load.

The circuit should work with a regular 8 ohm speaker, but the output power may be somewhat less. To optimize the operation, select a resistor where the 100K is shown to set the output voltage at 1/2 the supply voltage (4.5 volts). This resistor might be anything from 50K to 700K depending on the gain of the transistor used where the 3904 is shown.



Radio - Vietnam

RADIO TELEPHONE OPERATOR

tie the Military Assistance Advisory Group headquarters to essential subordinate organizations and Vietnamese agencies. Although much of this mission involved communications well above the division level, the 39th Signal Battalion was the pioneer for many divisional operations that followed. An early assignment of the 39th was to help install a special radio net for the village defense forces. The net tying the units together employed the amplitude modulated radio set AN/ GRG-109 at several subordinate stations in each broad operational area, all controlled from a central headquarters in Saigon. Although the net control station remained open around the clock for emergency reception, normal radio contact was made only on a scheduled basis using international Morse code.

Within the operational areas, an internal communications system employed commercial amplitude modulated (AM) voice radios, TR-20's, with other interested agencies, subordinate operational bases, and selected villages. These lower nets worked twenty-four hours a day but with traffic controlled to save battery power and to permit emergency traffic. The net control station was generally either manned or monitored by American advisers; the village and other net radios were operated by trained local Vietnamese. Light manpack sets, which would have enabled roving patrols to tie into the village radio nets, were in short supply at the time. According to one of the early advisers, Major Ron Shackleton, the old model AN/PRC-6 and AN/PRC-10 radios were tried but were too short ranging; they did see some limited use, however, by close-in observation teams and listening posts. Within operational bases, telephone wire was installed between defensive points and command posts. Village defense radios had been installed largely as part of a special project sponsored by the United States Operations Mission, a component of the Agency for International Development. Chief Warrant Officer George R. McSparren and a team of twenty enlisted men from the 232d Signal Company, 39th Signal Battalion, worked on the project for about six months during 1962, but more help was needed. Then the 72d Signal Detachment (Provisional), consisting of seventy-two enlisted men under the command of Captain Robert A. Wiggins, was sent on temporary duty to Vietnam. It was attached to the 39th Signal Battalion during late 1962 and early 1963 to take over radio operations in the hamlets throughout the Republic of Vietnam. In five months the operation was well under way, and the unit was awarded the Meritorious Unit Citation for its efforts.

Another early communications assignment involved avionics, the application of electronics to aviation and astronautics. Much of the early operational support of the Vietnamese armed forces centered on airmobility, which placed the highest premium on good communications between aircraft, particularly helicopters, and between aircraft and ground. To ensure higher echelon avionics maintenance support for the aviation units, six signal detachments (avionics) arrived in Vietnam during 1962: the 69th, 70th, 255th, 256th, 257th, and 258th. These detachments filled a vital need in supporting the communications and electronics equipment of the aviation units already in Vietnam and of those that followed. This activity came under the signal officer of the United States Army Support Group, Vietnam, the component U.S. Army headquarters within the Military Assistance Advisory Group, who employed a qualified avionics officer to coordinate all avionics support activities. Although serious shortages of qualified personnel beset the program at the start, the problem was resolved and the avionics detachments became an invaluable part of the communications team.

As aviation support expanded and the enemy began to adjust his operations and tactics to counter the helicopter threat, heavier and more frequent ground fire was encountered both in the air and on landing zones, causing a marked increase in damaged and destroyed aircraft. Aircraft and avionics mechanics and other available ground crewmen took turns riding "shotgun" at helicopter doorway positions to suppress the hostile fire. The practice had an inevitable ill effect on avionics and helicopter maintenance, and, in the fall of 1962, when the Military Assistance Advisory Group asked for help, a program was started to train men for specific duty as aerial door gunners. The 25th Infantry Division in Hawaii lent early assistance by providing specially trained volunteers on temporary duty as door gunners; they permitted avionics maintenance personnel to return to their specialties.

As the scope and complexity of American involvement increased, a need arose for an organization that could apply, test, and evaluate new methods and techniques (including communications) called for in the combat environment of counterinsurgency warfare. This led, in late 1962, to the establishment of the Army Concept Team in Vietnam under Brigadier General Edward L. Rowny. One of the team's earliest projects was generated by pleas from U.S. advisers for a better way to control and coordinate the communications means available to the South Vietnamese commanders they were assisting.

With the role of airmobility vastly expanding, command and control had assumed a new importance. Because the usual reaction to the hit-and-run tactics of the Viet Cong was a quick airmobile response, it demanded a helicopter command post from which the Vietnamese commander, together with his adviser and a limited staff, could get quickly to an area

Wireless Radio: Vietnam Continued:

under attack, develop a plan of action, and commit reaction forces rapidly. That procedure often meant briefing the reaction forces en route to the objective, coordinating with other friendly forces, and husbanding additional support as needed; in short, using several radios at the same time. Trying to do that within the confines of a helicopter passenger compartment, where space, weight, and power were at a premium, was no small task. The commander and his staff had to compete with the high noise level in the cabin to talk to each other and to the crew members. They also needed some sort of work surface for map layouts and overlays.
An early attempt to meet these needs was made by lashing down three FM (frequency modulated) radios (AN/PRC-10) together in the passenger compartment and mounting the antennas at 45degree angles on the skids. Although such a "lash up" was used with some success, it was cumbersome and provided only FM channels when very high frequency and high frequency single sideband were also needed because of the extensive range and variety of activities involved. The expedient also failed to provide for communications within the helicopter.

In early 1963, the Army Concept Team defined the requirements for an aerial command post for command control of ground and air operations and submitted a proposed evaluation plan. The plan was approved by the Commanding General of the U.S. Army Combat Developments Command and the U.S. Army Electronics Research and Development Agency at Fort Monmouth, New Jersey, which dispatched a two-man team to Vietnam in August to determine how the Electronics Laboratory might assist. In the end, four command post communications system consoles for UH-1B helicopters were fabricated. Each. included an operations table and a compact five-position interphone system independent of the aircraft interphone but capable of entry into that system. Each console also provided equipment for two different frequency modulated radio channels, an independent very high frequency amplitude modulated radio circuit, a high frequency single sideband circuit, and access to the aircraft's ultra frequency amplitude modulated command radio-certainly a full spectrum of radio coverage to meet almost any contingency.

The first consoles arrived in Vietnam in December 1963 and were issued to the 145th Aviation Battalion and the Delta Aviation Battalion (Provisional) for evaluation. The battalions found the original design to be too ambitious. Because of the size and weight of the console, two single seats normally occupied by the aerial door gunners had to be removed, and the additional weight upset the helicopter's center of gravity. Nevertheless, when the map board and table were eliminated and the single sideband radio relocated, the console performed so well that in July 1964 the U.S. Military Assistance Command stated an urgent requirement for a heliborne command post (HCP) for each Vietnamese division and one each for the Vietnamese II, III, and IV Corps.

The console was ultimately designated the AN/ASC-6. The thirteen required, along with two for backup, were fabricated at the Lexington-Bluegrass Army Depot in Kentucky and rushed to Vietnam. They were tested from late 1964 to early 1965 and were successfully used in all sections of Vietnam from Da Nang in the north to Pleiku in the Central Highlands and the Mekong Delta in the south. Headed by Lieutenant Colonel Clarence H. Ellis, Jr., a five-man team conducting the evaluation included two communicators, Major Cecil E. Wroten and Captain Wilmer L. Preston. The test report commended the assistance of another communicator, Captain James A. Weatherman, and the Avionics Office of the U.S. Army Support Command, Vietnam. Eighty-five more consoles of the AN /ASC-6 model would be obtained and deployed to Vietnam over the next four years.

Among conclusions noted in the test report was that standard aircraft radios and antennas were better suited for installation in the heliborne command post than were ground radios and antennas, a controversial conclusion that would arise again later. The report also noted that the command post functioned most effectively at altitudes between 1,500 and 2,500 feet, a compromise between observing activity on the ground and avoiding ground fire and other aircraft. In response to another conclusion that the command post had to be capable of longer flight time than troop transports or armed helicopters, a fifty-gallon auxiliary gas tank was placed in the space under the passenger seats.

The utility of the heliborne command post was so apparent that even as the test was going on, fifteen more were procured and placed in routine use. The heliborne command post, wrote Brigadier General John K. Boles, Jr., in forwarding the test report, " . . . is the single piece of new materiel which should have the most influence on improving the conduct of the war in Vietnam." While those steps to improve airmobility operations were being taken in Vietnam, parallel efforts were under way at Fort Benning, Georgia. The 11th Air Assault Division was activated at Fort Benning on 15 February 1963 following recommendations made by a special board studying tactical mobility requirements, known as the Howze Board (its chief was Lieutenant General Hamilton H. Howze). This extraordinary division was given a high priority on personnel and equipment; it was tasked to develop new and radical airmobile concepts and operational procedures.
As an action officer working in combat development on the Department of Army staff, I had the good fortune to serve on a team that visited the 11 th Air Assault Division during this time. The division commander, Major General Harry W. O. Kinnard, invited our team to a Saturday morning "think tank" session, a weekly practice within the division. At these sessions commanders and staff kicked around ideas, no matter how far-fetched, that pertained to airmobile operations and improved command and control. Our team was deeply impressed to see an entire division dedicated to talking through and then trying out bold tactical airmobile concepts that were no more than vague ideas a few years before. From those sessions emerged much of the embryonic doctrine that later guided the redesignated 1st Cavalry Division (Airmobile) to its dramatic combat successes in Vietnam.

Communications in airmobile operations received considerable thought and attention. In early 1964, the division signal officer, Lieutenant Colonel Tom M. Nicholson, asked the U.S. Army Electronics Command for assistance in designing and fabricating an airborne tactical operations center to be installed in the UH-1 helicopter. In the process, when the question of air versus ground radios arose, the 11th Assault Division chose ground radios primarily for supply and maintenance reasons.

Wireless Radio: Vietnam Concluded:

Using the same type of radios as used by ground maneuver units in the heliborne command consoles would permit rapid replacement of a damaged or inoperative radio at almost any supply point or battalion maintenance facility within the division area. It would also ease the problem of obtaining spare parts. There were also operational advantages over the aircraft radios in that ground radios were compatible and had a greater range because of their higher average power output.

The Communications Department of the U.S. Army Electronics Research and Development Laboratories at Fort Monmouth, New Jersey, directed by Robert S. Boykin, received the project. Built to 11th Air Assault Division specifications, a model was delivered in March 1964 and installed with the assistance of a laboratory team. Following limited operational testing at Fort Benning, the model unit was returned to the laboratories in May with a list of proposed modifications. The unit was finally designated the Airborne Communications Control AN/ASC-5, and fifteen more were built for the division by Lexington-Bluegrass Army Depot. The AN/ASC-5 served its purpose well at that time but was later modified and redesignated the AN/ARC-122.

Testing & Local Swapfests

VE Testing

Testing Session on March 26th, 10am-noon.

Amateur Electronic Supply 5720 W. Good Hope Rd. Milwaukee, WI 53223

Swapfests

Tri County Amateur Radio Club Swapfest March 14th.

Jefferson County Fairgrounds, Activity Center

503 North Jackson Avenue, Jefferson, WI 53549

Working Committees

Field Day

- Open

FM Simplex Contest

- Joe – N9UX
- Jeff – K9VS
- Brian— K9LCQ

Ticket drum and drawing

- Tom – N9UFJ
- Jackie – No Call

Newsletter Editor

- Michael-KC9CMT

Webmaster

- Joe Schwartz—N9UX

Refreshments

- Michael – KC9CMT

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) 332-MRAC (6722)

Address correspondence to:

MRAC, Box 240545, Milwaukee, WI 53223

Email may be sent to

w9rh@arrl.net

Our YAHOO newsgroup:

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

CLUB NETS:

- Our 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)

Milwaukee Area Nets

Mon.8:00 PM 3.994 Tech Net

Mon.8:00 PM 146.865- ARES Walworth ARRL News Line

Mon.8:00 PM 146.445 Emergency Net

Mon.8:00 PM 146.865- ARES Net Walworth

Mon.8:45 PM 147.165- ARRL Audio News

Mon. 9:15 PM 444.125+ Waukesha ARES Net

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

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

Tue. 7:00 PM 145.130 MAARS Trivia Net

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

Wed. 8:00 PM 145.130 MAARS Amateur Radio Newsline

Wed. 9:00 PM 145.130 MAARS IRLP SwapNet d FM-38 Repeaters (IRLP 9624)

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

Thur. 9:00 PM 146.910 Computer Net

Fri. 8:30 PM 28.490 MRAC W9RH 10 Mtr Net SSB

Fri. 9:00 PM 145.390 W9RH 2 Mtr. FM 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 146.91 Information Net

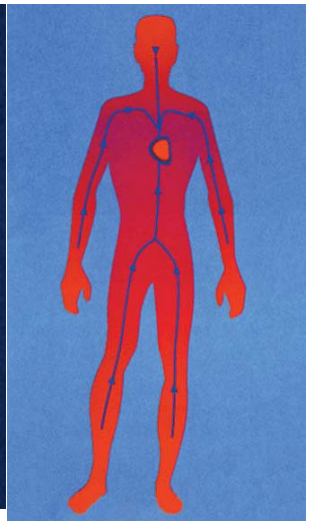
Sun 8:00 PM 28.365 10/10 International Net (SSB)

Sun 9:00 PM 146.91 Swap Net

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.

Hypothermia occurs when the extremities are excessively cold (blue).



Improperly warming the body will drive cold blood from the extremities to the heart, leading to heart

Animals are also affected by wind chill; however, cars, plants and other objects are not.

Frostbite is damage to body tissue caused by extreme cold. A wind chill of -20° Fahrenheit (F) will cause frostbite in just 30 minutes. Frostbite causes a loss of feeling and a white or pale appearance in extremities, such as fingers, toes, ear lobes or the tip of the nose. If symptoms are detected, get medical help immediately! If you must wait for help, slowly rewarm affected areas. However, if the person is also showing signs of hypothermia, warm the body core before the extremities.

Hypothermia is a condition brought on when the body temperature drops to less than 95°F. It can kill. For those who survive, there are likely to be lasting kidney, liver and pancreas problems. Warning signs include uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness and apparent exhaustion. Take the person's temperature. If below 95°F, seek medical care immediately!

If Medical Care is Not Available, warm the person slowly, starting with the body core. Warming the arms and legs first drives cold blood toward the heart and can lead to heart failure. If necessary, use your body heat to help. Get the person into dry clothing and wrap in a warm blanket covering the head and neck. Do not give the person alcohol, drugs, coffee or any hot beverage or food. Warm broth