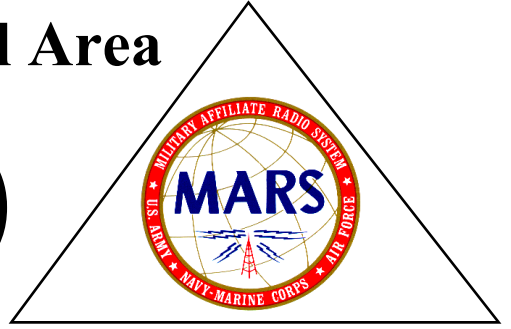


NAVMARCORMARS - Central Area

# The TRIAD

“Dedicated Volunteers - In Unity Of Purpose - Serving DOD”



September 2007

“Proudly Serving Those Who Serve”

Volume IV, Issue 8

# WL2K

## How To Get A Head Start On WL2K

*Winlink 2000* is a versatile digital network messaging technology that allows radio operators to send e-mail messages over HF, VHF, or UHF frequencies to other radio operators, and virtually every e-mail address available. *Winlink 2000* is the name of the *network* system, but the software that you will use to connect into the system is **Airmail**. **Airmail** acts like an e-mail client such as MS Outlook, Outlook Express or Thunderbird. For the MARS program, Airmail version 3.3.080 or greater should be used. Previous versions are not designed for MARS.

The *Winlink 2000* system uses a variety of components to do its job. You will hear a variety of terms when using the system. The major unit you will hear of is the PMBO (Participating Mail Box Office, which is now referred to as a Radio Message Server). The PMBO is a computer with special software, and a radio hooked into the *Winlink 2000* network. The PMBO is the station that you will connect to for sending and receiving messages via HF. MARS PMBOs are located, across the CONUS, in Germany and Qatar to date. Some of these PMBOs may also have a co-located VHF radio for VHF packet connections. You can use **Airmail** to connect to both.”

From Army MARS publication [Airmail for WL2K MARS Basic Training](#)

Winlink 2000 (WL2K) offers some excellent advantages in messaging, and especially to emergency communicators. In near real time, messages to any email address can be sent even when landlines, cell service and other normal methods of communication are down. As many of our members know first hand, this happens all too frequently, especially in the immediate aftermath of a disaster. Attachments may be sent, and even short text messages can be sent to any US cell phone number. All of this is transparent to the recipient, who receives the message as normal email. WL2K has already proven its value in real emergency situations.

Army MARS, for some months now, has been using WL2K as their digital messaging network.

Security issues have delayed integration of Winlink 2000 (WL2K) into the Navy/Marine Corps MARS Data System (MDS). Some of the concerns with the current system as used by Army MARS are;

- - Totally dependent on Internet. No HF back-up
- - No provision for varying precedences
- - No provision for multi-addrees on WinLink
- - No collective mailbox (state, region, etc) provisions
- - No clear line of support responsibility
- - Potential cross-link to amateur community

(Continued on page 2)

Chief MARS Broadcast 04-07 addressed this, saying:

“B. WINLINK 2000 OPERATIONS: DISCUSSIONS WITH THE WINLINK 2000 DEVELOPERS HAVE RESULTED IN TWO SIGNIFICANT CHANGES. FIRST, THE MARS PORTION WILL BE SEPARATED FROM THE AMATEUR SIDE TO ENSURE NO CROSSOVER OF MESSAGES AND SECOND, THE ARCHITECTURE IS BEING CHANGED SO AS TO ENSURE THERE IS ALWAYS AN HF LINK TO AND FROM EACH MAILBOX. THESE CHANGES WILL ALLOW NAVMARCORMARS TO UTILIZE WINLINK 2000. THE NEW ARCHITECTURE IS EXPECTED IN THE FALL.

C. WINLINK 2000 CODE: ARMY MARS HAS EXECUTED AN AGREEMENT WITH THE DEVELOPERS TO MAINTAIN A DEPOSITORY OF THE SOURCE CODE FOR WINLINK 2000. THE CURRENT DEVELOPERS RECOGNIZE THAT THEY WILL REACH A POINT WHEN THEY WILL NOT BE ABLE TO CONTINUE AND WANT TO HAVE THE CODE AVAILABLE SO IT MAY BE KEPT UP TO DATE IN THE FUTURE.”

Changes planned:

- - Develop HF parallel with server links
- - Divorce WL2K from possible cross-link to amateur access
- - Army central depository for software
- - Develop software support responsibility

So that Navy/Marine Corps MARS will be ready for use of MARS WL2K, Chief MARS, in Info Broadcast 22-07, encourages us to become familiar with the system.

Becoming familiar with the WL2K system can be accomplished with one or (preferably) both of these methods.

- Set up and use the **Amateur Winlink system**, which in most ways operates like MARS WL2K. Remember that the Amateur System is not authorized for MARS Communication. For information to get you set up and operating, go to <http://www.navymars.org/central/reg4/al/winlink.html>. Even if you don't set up Amateur WL2K, take a look at this page anyway, as it has information about the system's capabilities not covered here.

and/or

- Set up the ARMY MARS system. (Caution; This is not yet part of the Navy/Marine Corps MARS MDS system, however by following the NTP 8 (D) guidelines noted above, it can be used to send station to station email, etc.)

**Caution:** Our use of MARS WL2K must follow NTP8 (D), paragraph 560, and the provisions of ANNEX M.

**560. INTERFACING MARS WITH THE AMATEUR RADIO SERVICE**  
**a. MARS to Amateur refile: Refiling of MARS administrative official, semi- or quasi-official traffic into the amateur radio services is strictly forbidden. This includes amateur radio systems that forward MARS related e-mails over radio frequencies.**

**To get started, you'll need:**

- **A MARS Capable HF radio station.** Whatever you are using now should be just fine. There are plenty of WL2K PMBOs operating on a wide range of frequencies so you will generally be able to make a connection, day or night.

(or)

**A 2-Meter FM radio station** to access the system with VHF packet, if you live near a 2-meter Telpac node.

- **Computer** with Windows 98 (or better) operating system.
- **A modem (TNC) (A Packtor modem is needed for HF)**  
Airmail supports KAM+, KAM-98, KAM-XL, PK-232, PK-900, DSP-1232, DSP-2232, MFJ-1278, DXP-38, PTC-I, PTC-II.

HF Modes supported include Pactor (I,II,and III), Clover, G-tor and Packet. There are some differences in mode options between stations/PMBOs and that information is available for each station in a drop-down window within the program.

(or)

- **A Packet modem that** can be used for VHF access where there is a Winlink 2-meter node in your local area.

### To Set-up MARS WL2K:

1. Join the MARS WL2K Yahoo Group at [http://tech.groups.yahoo.com/group/mars\\_wl2k/join](http://tech.groups.yahoo.com/group/mars_wl2k/join). This will keep you up-to-date on changes and developments and provide a source of needed files and knowledgeable people to answer any questions you may have.
2. Go to the Files section of the group and under the "[Airmail install, configuration, and operation information](#)" folder, download "[Airmail for WL2K MARS Basic Training.pdf](#)". You will find this document to be a clear and complete guide to MARS-WL2K. It is very well written, and easy to understand. Just follow the steps in this guide, and you'll be up and running in short order.

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For more information on WinLink go to: <http://www.winlink.org/>

For information and program download of Airmail 2000: <http://www.airmail2000.com/>

Best source for MARS WL2K: [http://tech.groups.yahoo.com/group/mars\\_wl2k/join](http://tech.groups.yahoo.com/group/mars_wl2k/join)

# SHINGLES

By Marilyn S. Radke, M.D.

Shingles (*herpes zoster*) is a painful skin rash caused by *varicella zoster* virus (VZV), the same virus that causes chickenpox. After an attack of chickenpox, some of the virus particles move from the skin blisters into the nervous system and lie dormant in the nerve tissue. If the virus reactivates, it travels along the nerve fibers to the skin and causes the painful blisters that characterize shingles.

The first sign of shingles is often burning or tingling pain, numbness or itching in one particular area on only one side of the face or body. The most common location for shingles is a band, called dermatome, across one side of the trunk around the waistline. After several days or weeks, a rash of fluid-filled blisters, similar to chickenpox, appears in the

area. Other symptoms may include fever, headache, chills and upset stomach. After three to five days, the blisters crust over, and the rash usually disappears in two to four weeks.

Approximately two in 10 people develop shingles in their lifetime. Usually, a person has only one episode of shingles, but a second or third episode can occur. Rarely, shingles can lead to pneumonia, hearing problems, blindness, brain inflammation (encephalitis) or death. Approximately one in five people continue to experience severe pain (postherpetic neuralgia) for months or years after a rash disappears.

Anyone who has had chickenpox can develop shingles. It is most common in people over age 50, and (continued on page 4)

the risk increases with age. Shingles is also more common in people who have weakened immune systems from:

- \*Chemotherapy,
- \*Radiation treatment,
- \*Steroids and medications used after organ transplant operations,
- \*Human immunodeficiency virus (HIV) infection, and
- \*Stress.

A person with shingles blisters can pass the virus to someone who has never had chickenpox, but the person will develop chickenpox, not shingles. Shingles comes from the virus lying dormant inside the person's body, not from an outside source. The virus is spread by direct contact with the rash in the blister phase and is not spread through sneezing, coughing or casual contact. A person cannot spread the virus before blisters appear or after the blisters develop crusts. To reduce the risk of spreading the virus, people with shingles should keep the rash covered, not touch or scratch the rash, and wash their hands often.

There is no cure for shingles, but there are antiviral medications available to reduce its effects: acyclovir (Zovirax), valcyclovir (Valtrex) and famciclover (Famvir). When used as soon as possible after the rash appears, these medications can help shorten how long the illness lasts and how severe it is, and may help to prevent postherpetic neuralgia. Postherpetic neuralgia is also treated with steroids, antidepressants, anticonvulsants and topical agents.

Zostavax is a vaccine used to prevent shingles in people 60 years old and older who have had chickenpox. The vaccine was shown to reduce the number of cases of shingles by half. In people who still got the disease despite receiving Zostavax, the severity and complications of shingles were greatly reduced and postherpetic neuralgia was decreased by two-thirds. Zostavax does not treat shingles or postherpetic neuralgia once it develops. The vaccine contains live, weakened (attenuated) varicella zoster virus. Common side effects from Zostavax include headache and redness, soreness, swelling or itching at the injection site.

People who have any of the following conditions should not be inoculated with Zostavax:

\*Allergy to gelatin, neomycin or any component of the vaccine;

\*A history of weakened immune system from leukemia, lymphoma or other cancer of the bone marrow or lymphatic system; or AIDS or HIV infection;

\*Treatment that weakens the immune system, including high-dose corticosteroids;

\*Active, untreated tuberculosis; or

\*Pregnancy.

Zostavax is not covered under Medicare Part B (which covers vaccines for influenza, pneumonia and hepatitis B). Zostavax may be reimbursed through the Medicare Part D prescription drug program; therefore, Medicare beneficiaries should contact their Part D plan for more information.

If you are 60 years of age or older, ask your doctor about Zostavax.

If you develop a painful rash, see your doctor for evaluation. Your doctor can determine whether you have shingles and start you on treatment as needed.

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*Marilyn S. Radke, M.D., is board certified in preventive medicine, and practices in Atlanta, GA.*  
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Having had shingles for four years in a row, with all the attendant pain and discomfort, I thought it would be well to re-print this article from the NARFE magazine, July 2007 issue, with the hope you could avoid coming down with shingles, if you have had chickenpox, by availing yourself of this vaccine.

My thanks to Dr. Radke and Ms Margaret M. Carter, Director of Communications and Editor of NARFE magazine, for their permission to re-print the foregoing article in this issue of The TRIAD.

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**=THINGS TO PONDER=**  
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Do unto yourself as you would have others do unto you.  
---Sam Keen. The bad news is time flies. The good news is you're the pilot. ---Michael Altshuler. People can live through hardship, but from hard feelings they perish. ---Aleksander Solzhenitsyn. In the final analysis, the one quality that all successful people have is the ability to take on responsibility. ---Michael Korda. Putting off an easy thing makes it hard. Putting off a hard thing makes it impossible. ---George Lorimer

# A Heartwarming Story

From a friend who was on this plane

This past week I was on a four and a half hour, non-stop flight from Seattle, Washington, to Atlanta, Georgia. In all my years of traveling, I have learned that each time a plane has the opportunity to stop, there is potential for unexpected challenges. Flight delays, weather and airline crews can create unanticipated challenges on any trip. Therefore, I always try to fly non-stop between my destinations.

About an hour into this particular flight, the Captain's voice rang over the intercom. He asked if there was a physician or nurse on the plane. If so, he asked them to identify themselves by ringing the flight attendant call button beside their seat.

I listened carefully but heard no one ring their bell. I immediately began to wonder what was happening.

In a few minutes the Captain informed us that there was a medical emergency on board and asked again if there was a physician or a nurse who could help. When there was no response, we were told that we were going to make an emergency stop in Denver, Colorado. He apologized but told us that there would be a medical emergency team waiting to meet us at the gate and that we would probably only be delayed by about thirty minutes. Though it was

necessary, we knew we would all be inconvenienced by the extra stop.

About half an hour later, we landed at Denver International Airport and the medical crew immediately came on board. However, everything took longer than had previously been expected. An elderly gentleman, about 85 years old, had suddenly taken ill. It was not clear whether he had experienced a stroke or heart attack.

Even after the gentleman was carried off of the plane, we still sat there for quite a while. The original "short" stop turned into about an hour and a half.

When we finally pushed back from the gate and were in the air, the pilot apologized profusely for the unavoidable delay. He said that since the stop had taken longer than expected, those passengers who needed to make connections in Atlanta would miss their flights but would automatically be booked on the next flight out.

You could almost hear the moans and groans throughout the airplane of everyone who was being inconvenienced by the unexpected stop.

Then the pilot did one of the classiest things I have personally ever seen or heard anyone do. He spoke into the intercom and said, "Ladies and gentlemen, I thought you might be

interested in one bit of information. The elderly gentleman who was taken off the plane was a Marine in WWII. He was awarded the Congressional Medal of Honor and it was signed by President Harry Truman in 1945." The pilot went on to say, "I realize that we have all been inconvenienced today. However, in light of the fact that this gentleman was a war hero and was inconvenienced for four years of his life in order that we might experience the freedoms that we enjoy today, I thought you all should know that."

Immediately the airplane was filled with applause. Everyone was cheering and so pleased to know that the gentleman had been cared for in a way that was fitting and appropriate.

As we continued to fly, I thought to myself, "Isn't that interesting? We were concerned that we were inconvenienced for a couple of hours and yet, this gentleman's entire life was interrupted and inconvenienced for over four years while he went and fought in a war to protect the freedoms and values that we love and hold dear in this country today." I breathed a prayer for the gentleman and blessed him for all he had done to help us understand what freedom is all about. ---Kay

Nothing on this earth is as important as is our personal relationship with Christ. If you want to be a member of MARS, MARS makes certain demands on you with the expectation that you will fulfill/comply with those demands. If you want to join the Lions Club, membership in this organization requires compliance with certain demands. To become a member of a Masonic Order, certain requirements are levied upon one. An enlistee in the Marine Corps will learn quickly that membership in this elite corps is not a free ride. If we have accepted Christ as our Lord and Saviour, there are certain demands laid upon us, and we do well to obey them.

The Central Area Newsletter, **The TRIAD**, is published for the enjoyment and edification of Navy-Marine Corps MARS members. The contents **do not** reflect official Navy positions. EDITOR: Ben NNN0JQC/NNN0ASG EIGHT. 3301 Shannon Rd, Albany, GA 31721-1541. E-Mail: nnn0jqc@navymars.org. Central Area Director NNN0ASG IL: (Vacant). Deputy Director Central Area: Dave NNN0ASG ONE MI. Director Region Four: Jack NNN0AS4 GA. Director Region Five: Tim NNN0AS5 MN. **This is your Newsletter. Your input is needed.**

# Station DC Power Distribution

By G. Wm. Reynolds, NNN0TAK FL

This presentation follows from a discussion at the recent Region Four conference in Tallahassee at the conference motel one evening. The topic for the discussion was “*What happens to your station during a net when the a.c. power mains fail?*” The author was describing what happens at his location when our editor of the TRIAD (NNN0ASG EIGHT) commented, “I want an article with schematics, etc. ASAP”. In this article I will present the fundamental criteria for answering the query posed in our discussion and then will enumerate the steps that one needs to answer the query for your personal station.

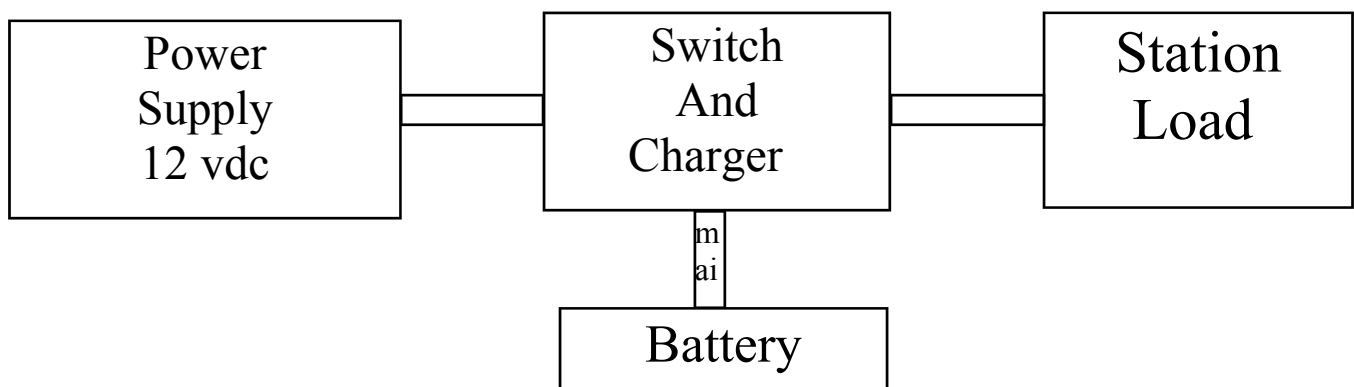
The primary goal is to **keep** your station operating for all the normal net activities **without** interruption until you have the emergency generator supplying station power. This assumes that you have an emergency generator and that you have battery backup that will switch automatically transferring the load in fifty(50) milliseconds.

For my personal station I decided that I would need at a maximum of two(2) hours of delay time, particularly, if I were relaying ECOMM traffic to the MDS. At the present time I have met this goal and am using several of these unit in my station..

The first step in meeting the “goal” is to make an assessment of your individual station power requirements. Fortunately nearly all of the transceivers, that NAVMARCORMARS members are using, are designed to operate from a nominal twelve(12) vdc source allowing a broad selection of batteries. Below is a description of a typical HF station that a member might be using:

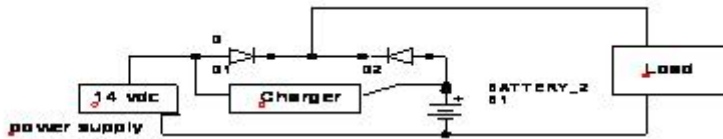
100w all band, all mode transceiver	12 v. @ 20 a.
Computer w/sound card (laptop)	18 v. @ 2 a.
Usb hub	7 v. @ 0.3 a.
TNC	12 v. @ 1. a.

This station will permit the member to participate in all the usual net activities and will permit the member to access the region MDS for transmitting “out of state” messages and to receive messages for the state from the mailbox. A simple block diagram meeting the “goal”:



The key to assembling such a power distribution system is the electronic switch and the float/ trickle charger. Obviously this assumes that both the power supply and the battery have the capacity to sustain the required load of the station including the capacity to maintain the charging current required. Using the regulated power supply as the source for the charger in the switch unit eliminates the necessity of a separate charging source for the battery and the electrical noise that is associated with the readily available battery chargers.. The battery for the typical 100 w. operating position should supply from 85 amp. hours to 135 amp. hours. The battery should be of the marine deep cycle type or a sealed gelled unit. Batteries of this size will maintain the operating position for three(3) to four(4) hours allowing the operator sufficient time to setup, start and connect the backup a.c. generator.

The switching circuit consists of two(2) high current, low forward voltage drop diodes connected as shown in the following schematic.



The charger component may be a single resistor (~ 0.75 ohm 5w.) which will limit the charging current to approximately one(1) ampere when the battery has been deeply discharged. This resistor, when the battery is fully charged, limits the trickle/float charge to approximately 0.5 ampere (see note 1). A more sophisticated float charging circuit was published in the ARRL Handbook (1992, ch.27, p16 ff). It uses a float charging IC (UC3906) and a pass transistor to control the charging current. A printed circuit board and IC are available from FAR CIRCUITS (see note 2). A more recent handbook in the “Power Supply Projects” chapter suggests ways that a suitable UPS might be modified to provide the float charging separate from the transceiver power supply and also provide 110 vac for a computer.

The author would remind all that connectors and cables connecting the distribution system components be rated for the currents supplied to the devices. This station is currently using “Anderson Power Pole” connectors, ¼ in. eye connectors, and #10 or #8 stranded wire for all connections. All eye and pole connectors are both crimped and soldered for the least resistance in the circuit. This is necessary in order to prevent the supply voltage to the transceiver dropping below 11.2 vdc. If the supply voltage drops below this value most transceivers will just stop operating.

A station power distribution system as described in this presentation permits the operator to have emergency backup power available 100% of his operating time. This makes the station available for ECOMM and net operations all the time assuming that the station has suitable antennas all the time.

Note 1a – The ASTRON power supplies Rx ##-BB series has this circuit built into the commercially available units.

Note 1b – West Mountain Radio offers the “PWRgate PG-40” which uses the same circuit with “Anderson Power Pole” connectors. They also offer the “RIG Runner” which is an power distribution bus using “Anderson Power Pole” connectors..

Note 1c – This station has also fabricated this circuit using automotive alternator diodes on a heat sink and suitable resistor. It has worked quite satisfactorily.

Note 2 – FAR CIRCUITS – web url: <http://farcircuits.net>. The other components used in this charger were purchased from Radio Shack.

# It Is Time To Leave!

Ben, NNN0ASG EIGHT/NNN0AS4 EIGHT

In the Book of Ecclesiastes, chapter three begins with these words: "To everything there is a season, and a time for every purpose under the heaven: A time to be born, and a time to die; a time to plant, and a time to pluck up that which is planted...;" To which I would add here, "A time to begin, and a time to end."

This issue of **The TRIAD** will be my last function as editor of this Central Area newsletter. My editorship began with the first issue of the newsletter in August 1997. LT Barbara Carter was Acting Chief, NAVMARCORMARS. On 10 November 1997, Bo came aboard as Chief NAVMARCORMARS, and that was front page news for the **REGION TWO NEWS**. The name of this newsletter has changed several times, but not the purpose. In reading over a number of back issues I am pleased, and so thankful, for the support given me by so many of you readers. To receive a phone call or an e-mail expressing appreciation after an issue would come out made the work of putting out a newsletter a labor of love. Anyone who has been editor of a newsletter, and those of you who still are, know a lot of time and work go into putting out a newsletter. In the early days of my editorship, after an issue had been put together, I paid to have 700 issues printed, then, with the help of my dear wife, would collate, staple, bundle together and mail to Bo to have stamps put on them so

they could be mailed out. Thankfully that system changed with putting the newsletter on the Central Area web site. My friend Bruce, NNN0ASG FIVE SC, has been a great help in making this happen smoothly.

Reading over old issues of the past eleven years remind me of the many friends I have made through the newsletter. And, I am reminded of the time and effort many of you have put into preparing articles to go into each issue. You sit down to write up an article thinking it will flow smoothly, only to discover that does not always happen!

There have been memorable stories, such as the one Bud, NNN0VDG FL sent in describing the trip to a Boy Scout Camp in the mountains of north Georgia of a group of Scouts from Florida. That was in the September 2006 issue.

The story entitled, **A VISIT FROM IVAN** by Jim, NNN0AS4 TWO, in the October 2004 issue was so good I tried to get Readers Digest to print it--no luck, Though.

Numerous technical articles sent in by Bill, NNN0TJC, have been outstanding contributions to our understanding of technical matters relating to advanced communications for use in Navy-Marine Corps MARS.

George, NNN0ASG THIRTEEN, is a man of distinction. With all he has

been through and his uncomplaining demeanor, his positive attitude, his strong faith and the way he applies himself in carrying out his work as our THIRTEEN, George is a gentleman, a valued MARS member, an inspiration, a man of distinction.

A number of people interviewed for our newsletter have also been men and women of distinction, overcoming difficulties, forging ahead making significant achievements in MARS and in other fields.

We are blessed with outstanding leadership from Bo, down through National, Central Area, Regions FOUR & FIVE, State Directors and staff members. Jim, NNN0ASG TWO, shepherds us through what many of us perceive as the hills and valleys of ECOM, while all the time he is endeavoring to lead us in the pastures of correct emergency communications procedures. The still waters of accomplishment loom on the horizon! So, we press on.

And now it is time for me to press on by retiring from my responsibilities as NNN0ASG EIGHT/AS4 EIGHT. I've been at this for eleven years. It is time for new blood to come forward and breathe new life into this newsletter.

My sincere thanks to all of you who have helped me put out each edition and enabled me to enjoy very much this privileged responsibility.