RADIOWAVES

MARCI Newsletter

FROM THE PRESIDENT:

I hope everyone is having a great Memorial Day Weekend. It goes without saying that we should all celebrate this holiday giving thanks to the members of our armed services. We should also give thanks to the families of those men and women in our armed services, past, present, and/or retired for the sacrifices they have made. A special thanks to MARCI members and their families are most certainly included here, whether they be active or retired military. You have all given so much for so long in the service of our country and to keep us all safe. We appreciate and thank you for your service.

Hurricane season 2021 is upon us and so whether you take such things seriously or casually the fact is, for the next 5 months at least there will be a lot of talk about it. Our own Radiowaves editor, Geoff Haines N1GY discussed in a previous issue and again in this the June issue some things to consider. He has offered major and minor suggestions simply to get us all thinking about the 'season' and a few things to keep us prepared for such things as power outages/shortages, indoor antennas, etc. From my own experience I can affirm that having an indoor (attic or other located) antenna gives you piece of mind when lightening is flashing outside and you wonder whether to disconnect you precious radio from that vulnerable antenna or not. I am typically using one of my four in-attic mounted antennas most anytime I am heard on any of the repeaters around. (High winds can't touch an attic mounted antenna either by the way.)

Of note around here of late has been the work done this year by

\ARES in preparing for and responding to the need for emergency communications. Exactly what the local ARES group would be able to provide or do in the event of a very severe storm remains to be seen as there has been little in the way of a LOCAL ‘model’ to aid in their training and development. (In my own way I think that’s a good thing. The fewer models of severe circumstances to learn from pretty much means we’ve been lucky so far. The question is how long will that luck last?)

But my guess is that the ARES group (depending on the severity of circumstances I suppose) would perform well or *quite well*, based on (if nothing else) their current training and willingness to be of service. And as their training is on-going their experience and training is only likely to make them that much better. My hat’s off to Steve Park, W4OEP for his efforts in the scheduling and implementation of his training program and to all the members of ARES for staying the course. Please stay sharp but let’s hope though that we never need you all for ‘the big one’.

Our next General Membership Meeting is Tuesday night June 1st at 7:00pm. As a reminder to those who may not already know, MARCI does not have a General Membership Meeting in the month of July. Our August meeting is Tuesday August 3rd at 7:00pm and of course via ZOOM with the link to the meeting being posted on the MARCI Website home page and also emailed to members. Please have a safe summer. Enjoy the Independence Day Holiday and we will see you all in August. Thanks for your support of MARCI, have fun on the radio, and please tell someone you love them.

-Mike Ryan K4CVL, President of MARCI

FROM THE EDITOR: Well, that didn't take long! It is not even June yet and already we had our first named storm of the season. Luckily for us it headed off to the North Atlantic. It still is a stark reminder that the 2021 Hurricane Season is due to be an active one. If you have not already done so, now is the time to double check your HTs and the batteries for same and make darn sure they are fully charged an properly loaded with the right frequencies. It is also important that you know how to enter a frequency "on the fly" as it sometimes is necessary to program your radio in the field without the benefit of RT Systems software. It is also important to have your personal go-kit ready. Clothing, meds and nonperishable food for three days is the bare minimum. On a personal note, I have taken over Jack Ham's slot on the WCF Technical Net while he is in Indiana for the summer. I am getting a bit more active in Ham Radio as my Model Railroading hobby has reached a kind of plateau. Unfortunately, as I was setting up my operating position for NCS duties, I discovered that my beloved IC-706MkIIG has decided that it would not cooperate and is in need of repair. My son, is sending the 706 that I gave him several years ago back down to me while I get mine repaired. Coincidentally, KD5FQM has a 706MIIG up for sale in this issue.

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From June 2001 QST © ARRL

THE HELP DESK

Antenna and Tower Safety

Many amateurs enjoy building and installing their antennas and consider this one of the most enjoyable aspects of their hobby. Since antennas are generally outdoors, they are affected by such potentially hazardous weather as wind, ice and lightning. Learning about the potential hazards of towers and antennas
and how to do antenna work safely will pay dividends. *Any heavy, large and permanent structure that fails or collapses can potentially hurt or even kill somebody.* The complete installation *must* comply with all applicable structural and building codes. Professional engineers design towers to withstand code loadings—that is, dead weight, wind and ice loadings that are applicable to the environment at your particular location. The latest revision of the EIA-222 standard is the document from which professional engineers work to ensure that their tower designs are structurally safe. To ensure structural safety and integrity, you must demonstrate that your tower has been designed by a qualified engineer to withstand EIA-222 loadings at your specific geographic area.

Further, the tower, foundation, guys and anchors must be installed (and maintained) according to any drawings, instructions and specifications supplied by the professional engineer. Remember: A properly designed, installed and maintained tower should be as safe as a building or a bridge! It is not feasible to discuss each type of antenna and tower in detail, so this section will include only highlights. For a full understanding of the specific hardware you will be working with, consult the manufacturer or supplier. You should discuss your antenna plans with a qualified engineer. The ARRL Volunteer Consulting Engineer program can steer you to a knowledgeable engineer.

When using slingshots or arrows to string up the antenna, be sure no one is in range before you launch.

In addition, your town or city will probably require that you obtain a building permit to erect a tower or antenna. This is their way to help ensure that the installation follows good practices and that the installation is safe. Wise amateurs realize that an independent review of drawings and site inspections are beneficial and can result in fewer problems in the future. Towers must have a properly engineered support, both for the tower sections themselves as well as guy wire attachments. Sometimes towers are braced to buildings for added support. The Antenna Supports chapter of *The ARRL Antenna Book* covers this subject in greater detail. Towers are available commercially in both guyed and self-supporting styles, and constructed of both steel and aluminum materials. Masts may be wood or metal. One popular and inexpensive mast used to support small antennas is the tubular mast often sold for TV antenna use. These come in telescoping sections, in heights from 20 to 50 feet. Aluminum extension ladders are sometimes used for temporary antenna supports, such as at Field Day sites. One problem with this approach is the difficulty in holding down the bottom section while “walking up” the ladder. Do *not* try to erect this type of support alone. Trees are sometimes pressed into service for holding one end of a wire antenna. When using slingshots or arrows to string up the antenna, be sure no one is in range before you launch.

Tower Tips

- Towers have design load limitations. Make very sure the tower you consider has the capacity to safely handle the antenna(s) you intend to install in the kind of environment that is applicable to your location.
- The antenna must be located in such a position that *it cannot possibly tangle with power lines, both during normal operation or if the structure should fall*.
- Sufficient yard space must be available to position a guyed tower properly. A rule of thumb is that the guy anchors should be between 60% and 80% of the tower height in distance from the base of the tower.
- Provisions must be made to keep children from climbing the support.
- Soil conditions at the tower site should be investigated. The footings need to be designed around actual soil conditions, particularly on a rocky site.

• Beware of used towers. Have them professionally inspected and contact the manufacturer for installation criteria.
• Check with your local building officials.
• Liability may be increased with a tower installation. Check with your insurer to ensure your coverage is adequate.
• Make sure you have all the tools needed before starting. Some specialized tools (such as a gin pole) may be required.
• The assembly crew as well as those climbing the tower during erection must wear hard hats and use appropriate personal protective equipment including gloves, boots, climbing belt or harness. Don't forget that lifelines are needed when the belt is unattached from the tower while moving.
• Assign someone in the erection crew to monitor the use of safety equipment.
• After the tower is installed, keep the installation safe. Inspection and maintenance recommended by the tower's manufacturer should be carefully followed.
• If making attachments to houses or installations on roofs, have a qualified person determine that the method is adequate and the loading conditions are satisfactory.
• Avoid metal ladders if there are any utility lines in the vicinity. Assume that any line is energized—including cable television and telephone lines.

Power Lines

Hundreds of people have been killed or seriously injured when attempting to install or dismantle antennas. In virtually all cases, the victim was aware of the hazards, including electrocution, but did not take the necessary steps to eliminate the risks. Never install antennas, towers and masts near power lines. How far away is considered safe? Towers and masts should be installed twice the height of the installation away from power lines. Every electrical wire must be considered dangerous. If the installation should contact power lines, you or those around you could be killed! If you have any questions about power lines, contact your electrical utility, city inspector or a qualified professional. If, for some reason your tower starts to fall, get away from it immediately. If it touches energized lines it may be a lethal hazard if you are in contact with the antenna. If a coworker becomes energized, do not touch the person. Instead, use an insulated wooden pole to knock the energized conductor away from them. Don't become a victim yourself! If the person is not breathing, immediately start CPR and call for emergency assistance.—*excerpted from the* 2000 ARRL Handbook

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QST June 21

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THE GO-KIT (A SUGGESTED LIST) FROM 2008
By Geoff Haines, N1GY

We all tend to think of the dangerous time of year being June through November, the traditional Hurricane Season. Every year there are "Hurricane Expos" and regional and national "Hurricane Conferences". All with the stated objective of preparing both the responders and the general public to better deal with the results of severe weather.

The truth is that dangerous weather can hit any time, any place, not just a particular season. Just last night, the Technical Net was interrupted by a priority announcement of a Tornado Warning for several counties within the West Central Florida Section. For the amateur radio operators in the section, it is very important to not file away our response plans and equipment until June arrives. Luckily, no Tornado touched down and no significant damage was reported, but what if it had? What would our response be if the EOC in one of our counties reported severe damage to an area? Would our "GO-Kits" be stocked with new materials and supplies, or would we have to madly dig through the storage shed just to find the back pack we usually put our stuff in?

Severe weather occurs frequently enough in this part of Florida that our "Go-Kits" should always be ready. They should always have up to date materials and supplies in them and we should be able to grab them and head out the door in as short a time as possible.

Building a Go-Kit is just like any other project. There is a list of components, an enclosure (the back-pack or duffle), and a certain order of assembly. As with almost any project, there are some areas that are vital and common to all go-kits, and there are some areas where one will customize the kit to fit the specific needs of your response task. The most important thing is to build it and have it ready when it is needed.

Below is a Go-Kit "Recipe" that has worked well for many hams for many years.

EQUIPMENT LIST FOR EMERGENCY DEPLOYMENT

ARES/RACES ID

Handy-Talky with Flexible Antenna

Speaker Mike or Headset for HT

Magnetic Mount Antenna to match HT

Any Necessary Adaptors to connect HT to Mag-mount Antenna

Power cord to power HT from Vehicle Cigarette Lighter Socket

Adapter to use power cord direct to battery

Gel Cell or Motorcycle Battery 13.8 Vdc

Trickle Charger for Battery

Street Map of County

25 feet of Coaxial Cable with connectors installed

"Barrel" Connector to mate coax to Mag-mount Antenna

Small Tool Kit

Flashlight and spare batteries for it

Pen and Paper

Personal First Aid Kit

Personal Medications and Hygiene Items

Sunscreen

Change of clothes

Rain Gear

Insect Repellant

All of this equipment should fit in a moderately sized gym bag or back pack. The electronics and electrical devices should be routinely tested and cycled on a regular basis so that when needed, sometimes at a moments notice, they will be ready to use.

Useful additions might be items such as a "Hard Hat", a flashing personal light such as bicyclists use when riding at night, and Trail Mix or other easy to store food items. Another useful item is a short list of important frequencies, phone numbers, and e-mail addresses for local police, fire, hospitals, EOC's, weather service, relief agencies and the like. This should be laminated for all weather protection.

FOR SALE:

Offer to build: Custom extension cables for any remote-able radio such as the Yaesu FTM-300, 350 etc.

PowerPole Power Distribution Blocks in 4+1, 6+1, and 8+1 sizes $10, $15, $20 each respectively Can custom build to suit.

Foot operated PTT switches brand new from MPJA wired with 3.5mm mono plug on10' cable. ¼" adapter available if needed. $10

IN ADDITION: I have more parts and components than I will ever use, so if you need something, a transistor, a plug, a jack, etc etc. call me first, I will give you a great price (as in no charge).

Call Geoff at 941-447-8579 (cell) or 941-752-3696 (home)

From Bill, N9US:

The AEA model VSB-70 is a Fast-Scan Television (FSTV) transceiver that operates on the amateur 420 to 440MHz band. The transmitter features two local oscillator crystal-controlled channels and an output of one watt PEP on sync peaks. Receive operation can transceive or use variable tuning. In transmit, baseband NTSC video and audio·are converted to Vestigial Sideband (VSB) video with the FM audio subcarrier in the 70 cm band. This is the same format as used by analog broadcast television. Video cameras, Camcorders and video cassette recorders with video and audio output jacks can be used to generate the baseband video and audio for transmission. A separate front panel microphone jack may also be used for audio input. Either color or black and white video may be used. Television channel 3 or4 may be used to monitor your broadcast signal. If you live in an area where channel 3 is used by a commercial television station, your VSB-70 must be configured for channel 4,and vice versa. A standard color or black and white television is used for .reception. The same television is used for monitoring your transmission. The VSB-70 uses a GaAs FET preamplifier which provides for a system noise figure of less than 1.5dB. Either crystal-controlled or VFO receive tuning may be selected.In addition to the video source and television set, a 13.6 volt regulated power supply and 70cm antenna are necessary. AEA also offers the RLA-70 linear amplifier with MPS-100 power supply and the 430-16 antenna to compiete your ATV station. To transmit, an FCC amateur Technician or higher- class license is required.

Bought for $309 from AEA in 1992. Works great! Best Offer

Ameritron 5 Way Antenna Switch RCS-8V

RCS-8V HF to VHF/UHF Remote Coax Switch

Ameritron's Remote Coax Switch lets you remotely switch up to five separate antennas using one inexpensive small control line (like standard telephone wire). Eliminate a tangle of troublesome coax and have a simple and neat installation with just a single feed line.

The **RCS-8V** consists of two units, the weatherproof switching box that mountson your tower or mast and the control unit that's placed at your operating station.

VSWR is less than 1.2 from DC to 250 MHz and less than 0.1 dB loss at 150 MHz, great for the HF/VHF/UHF operator.

It handles over 5 kW below 30 MHz and 1 kWatt at 150 MHz. You can ground unused positions or leave them open.

The indoor control unit is all metal to prevent RFI and TVI. It also has LEDs to indicate the antenna you've selected. A Lexan scratch-proof panel has a markable surface for labeling your antenna positions.

RCS-8V operates from a 120 VAC power source. Use any 6 conductor control line (not supplied) and allows safe operation with 14V control voltage.

Specifications

- Number of antennas positions: 5
- Loss at 150 MHz: Less than .1dB
- VSWR: under 1.2 to 1 from DC to 250 MHz.
- Impedance: 50 ohms
- Power Capability: > 5kW Watts below 30 MHz, 1kW at 150MHz.
- Antenna select time: 50 ms.
- Power requirements: 120 VAC @100mA, AC adapter supplied
- Connectors: Teflon® SO-239
- Control Box: 6" x 6 ⅛" x 2 ¼"
- Switch Box: 5 ⅜" x 7" x 3"

- This one modified to add remote-controlled relay to permit **switching between unactivated ports to ground or floating. Makes big difference (sometimes) on received noise level. Came off my tower in Illinois**
- **Current MFJ price $229.95 Best Offer**

Heathkit HA-14 "Mobile Kilowatt" Linear Amplifier

- The **HA-14** amplifier uses two 572B power tubes in parallel in a traditional grounded grid configuration. The matching power supplies are solid state. The amplifier is a small and affordable home KW that works very well in fixed station service. Perhaps more of them are used fixed than mobile. Model: Linear Amplifier HA-14 - Heathkit Brand, **Heath** Co.; Material: Metal case : Shape: Tablemodel, Dimensions (WHD) 12.25 x 3.25 x 10 inch / 311 x 83 x 254 mm : Notes: Heathkit HF-Amplifier HA-14. Grounded grid
- linear power-amplifier for 80 to 10 meters HAM bands. Driver power max. 100 watts, output power abt. 600 watts. My friend George Ulm, W9EVT, claims to have run one of these from his MOTORCYCLE! (Crazy as he is, I can believe it!). Check out his radio collection on his QRZ.COM page!

Have 2 of these. Sold 1 for $350 in 2010. Best Offer

Heathkit MODEL HP-24 AC Power Supply for HA-14 Linear

Material	Metal case
Shape	Tablemodel,
Dimensions (WHD)	9 x 4.75 x 6.75 inch / 229 x 121 x 171 mm
Notes	Heathkit Power-Supply *HP-24*.

AC power supply for SSB linear power amplifier *HA-14* (80 - 10 meters HAM bands). Can be wired for either 120 or 240 VAC input. Output: HV 2500 VDC (no load), Filament 12.6 VAC, Bias -150 VDC.

8.7 kg / 19 lb 2.6 oz (19.163 lb)
Best Offer

ICOM AH-2 Remote Automatic Antenna Tuner

This tuner was specifically designed to interface with ICOM transceivers using the CI-V interface. It can be used with other rigs with some manual intervention. With an antenna 12 meters or longer, this tuner will work all bands from 160 through 10 meters. To minimize interference to other stations, it transmits just 0.3 watts while tuning. Maximum input power is 120 watts. It has a built-in memory capable of storing tuning information for 8 different frequencies, which can be called up in less than 1 second. Tuning time for non-memorized frequencies is 2 to 4 seconds (20 seconds maximum time). It has both THROUGH (By-Pass) and TUNE modes. It comes with 100 feet of RC-6 six conductor control cable to connect between the control unit and the remote tuner.

Best Offer

MFJ-1026 HF Noise Canceller

Frequency Range: 1.5-30 MHz

Phase Reversal Switch: Yes

PTT Keying Input: Yes

Keying Connector Type: RCA phono jack

Width: 6.500 in.

Height: 1.500 in.

Depth: 6.250 in.

Weight: 1.800 lbs.

MFJ Noise Canceling Signal Enhancers are designed to reduce noise or interference, or improve desired signals, before the noise affects sensitive receiver circuits. Unlike conventional noise blankers, these units can be effective on all types of noise (QRN), as well as on interference (QRM) from unwanted signals. Noise Canceling Signal Enhancers work on all signal modes and can transform difficult receiving situations so you can finally hear, work, and log that rare DX!

MFJ Noise Canceling Signal Enhancers allow the user to adjust both phase and amplitude while combining antenna inputs. One of two antenna inputs may be connected to the transmit antenna, and the other to an external receive antenna or the internal whip antenna on the model MFJ-1026. Or both inputs may be used with identical receive antennas to create various directional patterns for optimum results. The signal output to the receiver or transceiver is the vector addition or subtraction of signals from two separate antennas, balanced and phased. This allows unwanted noise to be removed or desired signals to be enhanced.

Current MFJ Price $239.95. Have 2 for 1 (One needs repair). The good one works great!
Best Offer

For Sale: IC-745 radio
Astron RS-35M power supply
SG 231 Smart tuner
RG213/U Coax cable, approximately 60'
Total for everything $350
Contact rmhooie@yahoo.com

FOR SALE:

Icom IC-706MKIIG, Standard Mic & DTMF Mic, Filters for SSB & CW, mounting bracket $625

Tigertronics Signalink, 2 CAB6PM cables (6 pin, for ICOM or Yaesu) $125

Yaesu FT-1500 2m radio w/Rtsystems programming S/W & cable $140

Contact Jim email: KD5FQM@arrl.net

CLUB MEETING: To be a ZOOM session via the Internet on June 1, 2021 at 7PM
(To join the meeting just go to the MARCI web page and click on the link shown)
Monthly Board Meeting TBA (may be replaced with a teleconference)
Monthly ARES Meeting TBA

Club and Other Nets:

MARCI Info Net	Sunday 7:00 PM	146.820 – 100 Hz.
ARES Net	Monday 7:00PM	146.820 - 100 Hz.
MARCI Traders Net	Wednesday 7:30 PM	146.820 –100 Hz
David Flail, W3IK is the NCS for the Traders Net		
Manatee Skywarn Net	Thursday 8:00 PM	146.820 - 100 Hz.

PLEASE PARTICIPATE IN ALL THE NETS ANY TIME YOU CAN. The nets on Monday (146.820) and Thursday (146.820) are logged for the Manatee County Emergency Management and create "bill-able" hours of Volunteer Participation which often results in County provided equipment for ARES. And DON'T FORGET about the Regional Nets on NI4CE on 145.430 and 442.950.The Eagle Net, the NTS Traffic Net is on every night at 8:30 PM. The regional Skywarn Net is on Tuesday at 9 PM, The Technical Net is on Every Thursday at 9 PM or immediately after the end of the Eagle Net should that net run a little over. Our Club Net on Sunday night is recently very poorly attended. Our club has over 60 members. Surely at least 15 0r 20 of you can take 20 minutes out of your Sunday evening to check into your own club net! The most common complaint I hear about repeaters of all sorts, local and regional, is that ***"there's no one on".*** **The old saying about "if you don't use it you will lose it" was never truer than now**