

Marine Corps Marathon

A Guide for Amateur Radio Operator New Volunteers and Refresher for Returning Volunteers



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1. Introduction from the Marine Corps Marathon Amateur Radio Operators Leadership Committee

From the firing of the howitzer starting the Marine Corps Marathon (MCM) and until the last runner is escorted across the finish line by a large group of Marines cheering them on, communication is essential for the safety of runners, volunteers, and spectators across the National Capital Region. The service of Amateur Radio (ARO) Volunteers and our experience is essential to the success of the communications plan of the MCM. This will be our 46th year of service to the MCM and in that time we've become affectionately referred to as the "cockroaches of communication" by the MCM staff. When all other communication methods fail, AROs are still on the air and time-sensitive messages get through. We believe you will happily live with that title and continue to volunteer as an ARO providing exceptional service to the MCM.

The Marine Corps Marathon Amateur Radio Operators (MCM ARO) Leadership Committee is composed of lead Amateur Radio operators from across DC, Maryland, and Virginia who volunteer to work with the MCM Program Office, various local law enforcement agencies, EMS services, the MCM's Medical Staff, and many others. If you are interested in joining the MCM ARO Leadership Committee please contact us we are always looking for additional volunteers.

The MCM ARO Leadership Committee is responsible for recruiting, training, assigning, and managing all ARO volunteers according to the communications plans created and implemented in cooperation with the other MCM organizations.

The MCM ARO Leadership Committee thanks the Boston Athletic Association (BAA) Amateur Radio Committee for allowing us to use their "Boston Marathon - A Practical Guide for New Communications Volunteers" document as a template for this document.

This guide is a general introduction to Amateur Radio operations at the MCM, with emphasis on the majority of AROs assigned to the Mile Markers, Water and Food points activities. More specific instructions are provided to the Shadows, Medical Tracking, and Net Control teams and takes precedence over this generalized document. We will also publish a "Marine Corps Marathon Tactical Communications Guide" closer to race day. That documentation will have the latest and most specific information as race time approaches. That document will also take precedence over this document.

Regardless if you are a first-time volunteer or returning to participate in your 15th Marathon, we thank you for your service to the runners, spectators, men and women of the U.S. Marine Corps, and for proudly representing the Amateur Radio community. We hope the MCM is an experience that you'll want to return to, year after year.

Marine Corps Marathon ARO Leadership Committee – July 2024

2. The 10,000' view

Recognized for an iconic course managed by the US Marines in Arlington, Virginia and the nation's capital, the Marine Corps Marathon is one of the largest marathons in the US and the world. Known as 'the best marathon for beginners,' the MCM is the largest marathon in the world that doesn't have a qualifying time and doesn't offer prize money, earning its nickname, "The People's Marathon."

When seen from the spectator's perspective, the Marathon first presents itself in the form of lead pro runners who fly by at a constant, incredible pace, on their 26-mile journey. Every participant is there for any number of reasons; the comradery, to achieve their personal best, to see the sites, to run for a cause, or to honor a loved one. From above, it's a huge mass of runners, making their way to finish along a closed course, which for the other 364 days of the year, it is the hustle and bustle of the National Capital Region.

Your view as a volunteer, and depending upon your assignment, will be anywhere within the 26 mile span. The preponderance of volunteer opportunities will give you a seat within a remarkable and critical event support structure. You'll be on the other side of that rope, relied upon for your knowledge of your job, the application of communications standards, and your ability to work within a team structure. You'll very likely have plenty of opportunities to view the event close up and interact with runners, Marines, and other volunteers as your job may require.

Volunteers from the District of Columbia, Maryland, and Virginia and many from well outside our area seek out volunteer opportunities at this Marathon for these and other reasons.

3. Preparing for Race Day

Preparation is the key to success at the MCM. Assignments near Start/Finish and the final 2 miles of the race are within the security bubble near the Pentagon and Marine Corps War Memorial are limited in the amount of gear to what they are able to carry. Even then there are tighter restrictions inside the security bubble. Those located out on the course may be in an area where they can park their car very close to their assigned location. The MCM office has a [Safety Page](#) with general guidelines. Please remember that law enforcement may have more stringent security on race day so be prepared to slim down to whatever they approve of. All jurisdictions in which the race is run either don't allow the carry of firearms at all or have special amendments to the law that do not allow the carry of firearms even with a permit during events such as the MCM. Bottom line, leave your firearms at home. Although we are working for the MCM we are not exempt from the security rules or laws (including parking).

In addition to physically having the right gear, it is important to read the emails and documents that we send out. The best thing to do is to read them as soon as they are available, ask questions if you have them, and then to refresh yourself the weekend before the marathon. We will be providing a "Marine Corps Marathon Tactical Communications Guide" with more detailed information with a target release date of no later than mid-September. The Tactical Communications Guide will contain reminders from this document, specific information not available at the time of this document's publication, and a

smaller printable section designed to keep with you on race day. There will be an in person All Hand Training Session prior to the MCM (normally the Saturday 2 weeks before the Marathon).

The last type of preparation is mental. This is a demanding, but fun day! One series of things we will be reminding you to do frequently is to think before transmitting your traffic. It is more than that though. You need to engage all your senses. Listen and observe what is happening around you. Process what you have observed or are asked to pass over the radio. Decide what your traffic will be before you send it and how you can keep it short as possible while still conveying the needed information. Listen for the channel to be clear. Transmit your traffic. Then listen for confirmation and/or further directions. It is a process that works best if you remain calm even in the most stressful situations. If you have never volunteered at the MCM or another marathon before you are likely to see things you have never seen before, proposals right in the middle of the race, people running in full plate carriers and weighted rucks, runners in costume, a person carrying a table while running to set a world record (yes, it happened in 2022), runners with little to no modesty when they need assistance (especially in med tents). Your Net Control operator or Marine OIC for your location can help you with questions you have on race day.

3.1. Equipment

When preparing the equipment for the MCM pack for easiest transportation. Remember in most cases you will be carrying your gear all day. Label all equipment, clothing, and other items with your call sign, name, and phone number. Use permanent marker, paint pen, or engraving. This helps to return what you leave behind.

The specific links in the section below are only examples, not endorsements of specific products. There are many options depending on which radio you have and personal preferences.

3.1.1. Minimum Equipment

There are a few absolute basics that are required to volunteer successfully at the MCM.

- **Radio** - A dual band VHF/UHF handheld (HT) radio with a fully charged spare battery (or 2 or 3). If the radio has dual receive or dual watch, please turn that feature off so that the radio will be on the one frequency you are assigned. As part of your assignment, you will be told if you need something other than an HT.
- **Antenna** - A ¼ wave or similar aftermarket antenna. The manufacturer's provided antenna is not sufficient for most of the course. Make sure it will fit your radio's specific connector type and gender. Tiger Tails will improve your antenna and radio performance. There are a number of good web sites and YouTube videos on how to make a Tiger Tail.
- **Speaker-mic or similar with an earphone** - These can be purchased on Amazon or from any Amateur Radio supply store. An earphone allows you to hear better with loud noise which is normal throughout much of the MCM. It also keeps the traffic on our net "private". We do not want spectators randomly hearing all the traffic on our net through your radio's speaker.
- **Something to write on** – A waterproof notepad is suggested. Many of us prefer Rite in the Rain

products. ([Amazon](#))

- **Something to write with** – A waterproof pen is suggested. Many of us prefer Rite in the Rain products. ([Amazon](#))
- **Photo ID and medical information card or phone application**
- **Food, water, medication** - Anything else you need to be on your own for half a day or more.
 - MCM supplies a selection of food and drink at check-in. If this isn't to your taste or you have dietary restrictions, please bring your own.
 - **Always bring extra to drink.**
- **Clothing** - Appropriate for the weather, keeping in mind that you must wear your marathon vest over whatever else you are wearing (for identification purposes).

3.1.2. Recommended Equipment

Most of us carry more than the above and add:



- **Chest harness** – One popular option among ARO is the [Coaxsher RCP-1 Pro](#) (with the extension straps for most of us – HAM size) but there are less expensive options too ([Amazon](#)). These position the radio and most importantly the antenna where it will work best. Getting it off your hip and into a more elevated position.
 - **Waist pack** or fanny pack
 - **Clear poncho** (which can be worn over the marathon jacket)
 - **Hat** - This should be a basic hat and not have any logo or other message that would detract from our work or the MCM. Call signs or appropriate amateur radio logos are acceptable (ARES, ARRL, local club, etc).
 - **Backup radio** - In the military the saying goes, “One is none, and two is one.” You hope that two is never none, but there is only so much gear you can carry.
- **Backup antenna**
 - **Headphones or Backup speaker-mic or similar with and earphone** – Headphones with listen though capabilities or with only one earphone make it much easier to hear and in many cases be heard than a speaker mic with an earphone.
 - **Wristwatch** - Far easier than looking at your cell phone to get the current time
 - **USB battery pack to recharge cell phone**
 - **Multi-tool of some sort** - We are frequently called upon to “unlock” the porta-johns on the course. Many are just zip tied. A multitool is the universal key and won't draw too much attention from local law enforcement unless you are inside the secure perimeter of the Pentagon or the War Memorial.
 - **Watertight clear plastic bag** – This helps to protect your radio and other electronics in case of rain. Even a basic Ziploc bag works well and better than nothing.

It is imperative that you test all your gear well before race day and make sure you have enough battery power for ten to twelve hours or more. It is recommended to keep the equipment as simple as possible. Bluetooth headsets are likely to not work well due to noise on the course and RF interference from thousands of spectators and runners also using Bluetooth earbuds with their phones. Also, complicated remote microphones that provide remote control of the radio may cause issues that won't happen with a simple speaker-mic with earpiece or a headset.

4. Operating at the MCM

No matter where you are assigned on race day you are part of a team. There will always be someone on the other end of your radio and for almost everyone there will be others with you at your stations. Depending on when you get there, you may be the first to arrive. If you are at a mile or half mile marker, you will probably be with a couple of Marines that just arrived at Officer Candidate School (OCS) on Monday and "voluntold" they were working the MCM on Sunday. If you are at a Water, Food, Aid Station, Med Tent, or a Shadow there will be an Officer in Charge (OIC). The OIC is in charge of the personnel and operation of their location. Introduce yourself. Let them know that you are their amateur radio operator. The OICs may let you know how they want things to run or you may have to ask them. The Marines at from OCS at the mile and half mile markers, you probably know more than they do. Help them out.

Remember, you must be able to communicate - that is your only job. You can't be distracted. Always keep your earpiece or headphone on so you can hear overtop of the surrounding noise. This will help to keep you asking Net Control to repeat transmissions. The frequency needs to be as open as much as possible so that critical traffic can get through." If possible, keep your radio above your belt, preferably so the antenna is high and clear of your body. A radio vest or harness is a good solution for this... just be careful that your long antenna is secure so none of your teammates are poked in the eyes! Unless you are near a strong repeater, body fading (your own, and others), signal reflections, and front-end overload may combine to make reception unreliable with the radio strapped to your waist.



A radio chest harness (see [3.1.2 Recommended Equipment](#)) puts the radio exactly where it needs to be. It's safe on your chest. Radios in pockets can fall out. Radio on belt clips may not be comfortable for eight or ten hours and may be difficult to get to if you need to change frequency. The whip antenna is slanted so it's out of your way and will not poke you in the eye during the day. *Just be careful that it won't poke anyone else.* Some harnesses have an antenna retaining loop which will prevent you becoming the initiator of a medical incident! The remote microphone can easily attach to the over-the-shoulder straps just below your head so you can easily key it.

If you are assigned to a vehicle, you may need a magnetic or suction cup (aluminum body vehicles) mounted antenna that you can attach on the roof or window of the vehicle. Don't assume your HT whip antenna will always work inside the vehicle.

4.1. Pre-Programming

A frequency plan for the MCM in the form of a standard ICS-205 format will be published closer to race day.

The channel list will include all the frequencies, channel tactical identifiers (i.e. Echo, Foxtrot, Gulf, etc), offsets, and sub audible (CTCSS) tones you'll need on race day. You must program all of the channels into your radios before race day. The dynamic, sometimes noisy, and often stressful MCM environment is not the place to be figuring out how to program your HT but bring your radio programming manual anyway. An electronic copy on your cell phone is an easy way to keep it with you without having to carry a printed manual. Last minute changes or mistakes in programming will leave you fumbling if you're not already an expert in changing your radio's settings. It's best to program all of the frequencies into your radio in case your assignment changes or there are any issues with a particular repeater or frequency. We suggest programming the frequency plan channel names (i.e. "Echo", "Foxtrot"), if your radio has an alpha display option. This is what Net Control will be using not actual frequencies. We provide a CHIRP CSV file that will also work with several other radio programming software including RT Systems once the frequency plan has been finalized. [CHIRP](https://chirp.danplanet.com/projects/chirp/wiki/Download) (<https://chirp.danplanet.com/projects/chirp/wiki/Download>) is free software that can be used to program many popular radios and is available for a variety of operating systems.

When programming your radio a few important common settings we ask you to set:

- Time-out timer of no more than 1 minute - Turns off transmitter if it is stuck on accidentally
- FM WIDE deviation ($\pm 5\text{kHz}$) - **NOT** $\pm 2.5\text{kHz}$ "half deviation", or "narrow"
- Auto Power Off set to OFF - Radio won't turn of unexpectedly
- VOX set to OFF - PTT must be used for manual control of transmission
- Battery Saver set to 1:2 or 1:5 (0.5 to 1 second) - Increases battery operating time by about 2 to 5 times, depending on the sleep (save) interval. External power may disable the battery saver function. Check your radio operating instructions.
- Transmit Power set to **5 WATTS MAX** – Net Control will request more if it is needed and you can supply it

4.2. Clothing

You must be prepared for any weather. Late October in Virginia and DC is challenging and could be anything from a very sunny and humid 90 degrees, to 30 degrees with snow, or anything in between. To make it even more challenging, for most locations you will not be co-located with your vehicle. You will in most instances be close, but you would have to leave your post for an unacceptable period to get to your vehicle and back. You should be prepared such that all of your extra clothing is easy to carry.

You will be given an official MCM ARO safety vest and wristband that must be worn at all times. These are your credentials to access the race course. These vests distinguish ARO volunteers and other volunteers through color and the logo on the back. The wristbands are color coded to the volunteer position. All other volunteers and runners are told to look for the very distinctive MCM ARO volunteer vest if they need assistance or get information passed to leadership. Do not cover the vest with any

other clothing or backpack that will hide or obscure the vest (especially the back). A clear poncho is acceptable. The MCM ARO vests do not have pockets for storing extra batteries, snacks, etc. Many of us will wear our normal vest with pockets we use for other ARO (i.e. ARES) activities under the MCM ARO vest.

The rest of your clothing should be weather appropriate and professional. None of your clothing should have any logo or other message that would detract from our work or the MCM. Your professional appearance makes a difference. Remember, we are representatives of Amateur Radio and of the Marine Corps Marathon.

Based on the weather forecast, be ready with:

- Comfortable waterproof shoes or boots.
- Personal water bottle for hydration. Many locations will not be near accessible water to refill your water bottle. Make sure you bring enough water to last you for the day.
- Appropriate rain gear. Wear a waterproof jacket with a large hood that will keep your head dry. Just be sure that your MCM Vest is worn as outerwear.
- Cold weather, layered, clothing. You could be outdoors for seven or more hours.
- Sunglasses, a hat, gloves, sunscreen (even on a cloudy day you can get sunburn), and insect repellent.

4.3. Extra Supplies

It is best to carry with you as much as you can. If you bring a backpack or cooler make sure it is labeled with your name, phone number, and call sign. Keep it close to you at all times. If you do set it down, make sure the Marines and other volunteers with you know that it is yours. Many stations will have an area for volunteer bags or packs. We don't want your cooler or backpack being the suspicious item called into law enforcement. Be prepared to have any bag or cooler you bring onto the course searched.

4.4. The Final Two Months

As we get into the home stretch before the MCM there will be a lot of communications and finalization of information from the MCM Leadership team. The Marine Corps Marathon Tactical Communications Guide along with all other guides will be finalized and distributed. The frequency plan will be finalized. We target no later than the 15 September for the final delivery of the guides and frequency plan. We will get it out sooner if possible. We also target 15 September for near final position assignment. This all depends on how many volunteers we have and how many holes we are trying to fill by last minute recruiting. Optimally we need 150 ARO volunteers to fully staff the MCM. **We do reserve the right to move any ARO volunteer to a different location, even on race day, if there is a critical position we need to fill.**

As we get closer to the actual race day you will see us starting to refer to time as “M-x”. Where “M” stands for Marathon and “x” is the number of days until the marathon. M-0 is MCM Day. Normally M-8, the 2nd Saturday before the MCM, we have an in person All Hands Training session. It is normally held in Northern VA or DC. This is a great opportunity to get all the up-to-date information on the event, get a briefing from the MCM Medical Staff, and meet your fellow ARO volunteers. Also be on the look out for a “radio test day”.

Normally somewhere between M-10 and M-4 the MCM Office will email you a unique parking pass for your vehicle and assignment. This will come from a @USMC-MCCS.org email address. You must print your parking pass and bring it with you to the event. This is part of your credentials to the racecourse along with your wrist band and MCM ARO vest. This does not give you any special privileges to park illegally, but it will help you to get to your location or if you park legally close to the racecourse but stay a little longer than the allowed time.

We encourage you to ask questions whenever they come up. Once we get to M-7 the MCM ARO leadership team and MCM Staff are in “tactical mode”. We are getting set up for the MCM and a number of us are onsite at the Marathon starting at M-4 (Wednesday) through M-0. We will be available for urgent issues that need to be addressed before the Marathon, but responses may not be as quick as you would like if it doesn’t affect assignments or major operational issues for the MCM.

4.5. Marine Corps Marathon Day: M-0

Generally, the start of your day will be very early, or as we say “zero dark thirty”. The first activity will be to pick up your vest, wristband, MCM provided food, and any last-minute materials the MCM ARO leadership team needs to distribute. Check-in opens at 0200 and normally closes 45-60 minutes before the final road closures for the MCM. This closing time allows those picking up their materials late and the volunteers manning packet pickup time to get to their assigned location despite road closures or local construction. The exact times and directions to the pick-up location will be in the “Marine Corps Marathon Tactical Communications Guide”. The closing time of the packet pick-up has always been before the Metro opens. If you plan on using Metro, this is not a viable option to get from packet pick-up to your location in time for Net check-in. If Metro decides to have special event times that open before packet pick-up closes we will make sure that you are informed.

*About Credentials: At packet pickup you will receive a MCM ARO vest and wristband. You will need to bring your printed parking pass from home. **There will be no ability to print a parking pass at packet pickup.** Guard them with care. They’re your pass into the area where you’ve been assigned! Some of the areas, notably at the Marine War Corps Memorial and Pentagon area, have multiple security zones. Although you hold credentials, they may be limited to your area of operation. They also do not give you any special authority. If a Police Officer gives you instructions obey them, even if you think they are wrong. Contact the Race Operations Center (ROC) or Net Control. Issues are resolved in the ROC. The ARO Lead is there along with representatives from every jurisdiction covering the race.*

No matter where you are assigned on the course you are part of a team. Each mile and half mile normally has a Marine or two assigned to that location. Water points, food stations, and aid stations all have an Officer in Charge (OIC). The OIC is responsible for all volunteers at their location and the operation of their location. If you are assigned as a Shadow you will be with a Marine or Navy office.

EMS Liaisons will be embedded with EMS Command staff for Arlington or DC. No matter where you are stationed or who you are with your primary job is to communicate. The entire ARO communications voice operation is run as a directed net. You will relay information from the course to Net Control or relay information passed from Net Control to the OIC, Shadow, or team you are working with. In some instances, they may direct you to change channels for exchanges that may be lengthy or so you can go direct with EMS without tying up the primary channel.

While you are part of a team wherever you are assigned, your primary responsibility is to communicate. If you are asked by the OIC, person you are shadowing, or team lead to help in another manner at your station that communication and you are willing, able to, and it does not conflict with your primary responsibility to communicate feel free to do so. If you are not able to or if it causes a conflict, please decline politely. If they become insistent, let Net Control know and the ARO leadership in the ROC will work it out with the MCM leadership.

One of the most important things to figure out on race day is the location of the closest porta-john. Chances are you will need it and there is even a larger chance someone will ask you where it is. Please remember that if you go to use the porta-john, call Net Control to let them know you are going off the air for a few minutes. Then call them again when you are back on the air.

At the end of the race there will be a sweep procession. This will include the rear pace, straggler bus, clean-up vehicles, law enforcement, etc. Part of this procession in one of the vehicles will be an ARO who will be collecting the MCM ARO vests that you received at packet pickup. When the rear pace has reached your location call Net Control to let them know. This will also let the next station down the Marathon route know they are up next. When you turn your vest in to the ARO operator picking up the vests, call Net Control and ask for permission to secure your station. ***If you are assigned to an Aid Station, you will need to wait until all patients are released and the Aid Station OIC gives you permission to secure prior to asking permission for Net Control to secure.*** One operator from an Aid Station will need to step out of the Aid Station to turn in both vests to the passing sweep if the situation allows. If it does not, turn in your vest to the Aid Station personnel for return to the MCM Office. If you are located inside the secure perimeter near the Pentagon or the Marine Corps War Memorial, you will most likely need to turn your vest into an Aid Station as the sweep convey with the ARO picking up the vests will not go the whole way to the War Memorial. ***Never*** depart your post until cleared by your OIC and Net Control.

Many areas of the MCM are security-sensitive not only because of the marathon, but also on any other normal day because they are part of the National Capital Region. Make sure you police your area for all your belongings before you leave so you not only don't forget your belongings, but so you don't also create a security issue for law enforcement. Also, be very careful as you leave your position. There will still be many spectators out there and roads may still be closed. Please obey all traffic laws and directions from law enforcement as you exit the racecourse and travel home.

If you're positioned at the Marine Corps War Memorial, your day will start extremely early in the morning and won't end until after the MCM finishes. If you're positioned outside the War Memorial area in the first few miles of the race, you will possibly be home before lunch. No matter where you are positioned you will serve a critical role in the success of the MCM, hopefully make some new friends, and enjoy yourself.

5. Communication Best Practices

A large public service job like the MCM is different in important ways from other typical Amateur Radio operations, such as “rag-chewing”, contesting, and traffic-handling nets. The most important difference here is that we can't control the pace of communication. We must keep up with events as they happen in the real world.

To be truly on top of the events, we must anticipate and keep ahead of them. Most of the information we pass is extremely time-sensitive, and some of it is safety-related. There are periods when the channel gets very busy and airtime becomes a limited and precious resource.

Nevertheless, it's essential that all our operators be able to get airtime at the moment they need it. To accomplish that, we must use airtime efficiently. We must communicate both clearly and quickly then release the channel for the next call. This requires cooperation and self-discipline. Everything is done as a directed Net at the MCM.

If you didn't need your radio to communicate, hands down the most important piece of gear you bring to the MCM would be your brain. Given you need your radio, let's call it a tie. To communicate effectively you need to engage all your senses and think before transmitting your traffic. Listen and observe what is happening around you. Process what you have observed and are asked to pass. Think and decide what your traffic will be and how to keep it as short as possible before you send. Write it down if you need to and there is time. Listen for the channel to be clear. Transmit your traffic. Then listen for confirmation and/or further directions. Once again write it down. This gives you a written log and will help you from having to ask Net Control repeat previous instructions.

5.1. Pronunciation

Clear pronunciation is key to any type of communication, especially radio transmissions where there may be static or background noise from your surroundings to further garble the message. There are a few simple things you can do to help get your message through.

5.1.1. ICAO Phonetic Alphabet and Punctuation

Pronunciation of individual letters or spelling of words or phrases that are difficult to understand should use the phonetic alphabet below including the referenced punctuation marks.

ALFA	INDIA	QUEBEC	YANKEE
BRAVO	JULIETT	ROMEO	ZULU
CHARLIE	KILO	SIERRA	
DELTA	LIMA	TANGO	
ECHO	MIKE	UNIFORM	DASH
FOXTROT	NOVEMBER	VICTOR	SLANT
GOLF	OSCAR	WHISKEY	DECIMAL
HOTEL	PAPA	X-RAY	COMMA

5.1.2. Time of day

Time of day is expressed as local time in 24-hour format. Don't say "... AT Ten Twenty Three hours", just say "...AT Ten Twenty Three". Always state a two digit hours, two digit minutes, and if requested a two digit seconds.

5.1.3. Spoken numbers

Numbers (and everywhere else except time-of-day) are spoken digit-by-digit. TWO THREE, not TWENTY-THREE. Leading zeroes are spoken in two-digit numbers below 10. For example, 7 would be ZERO SEVEN.

It is fine to use NINER in place of NINE and other ICAO numeric phraseology where it will improve understanding.

Decimals are expressed with the keyword DECIMAL. (example: "TEMPERATURE IS NINER EIGHT DECIMAL SIX.")

6. Communications Assignments at the Marathon

Your work at the MCM constitutes an "assignment". There are numerous assignments you could receive while working the MCM. We try to honor the location you may have requested when you signed up. This isn't always possible as there are critical positions that we must make sure are staffed. Please note, last-minute changes could cause you to get switched from you assigned position, the week of or even the morning of the MCM. There is the rare occasion where we will ask an individual to change assignments during the MCM.

Based upon information you provided when registering, the MCM ARO team will be able to discern your level of experience and the equipment you have. Don't worry. Try to be flexible and understand that you may be asked to work anywhere. This means you should bring any necessary gear that you indicated you have and that your assigned position requires, and operate for a potentially lengthy time span.

IMPORTANT NOTE: There's a very good chance you'll be working an assignment where you're not near your vehicle. This is absolutely the case for those assigned to work on the Marine Corps War Memorial and inside the secure perimeter of the Pentagon. This means everything you need for the entire day must be carried by you to your assignment location. Be prepared for your bag to be searched. The Pentagon and War Memorial areas are likely to be especially rigorous about this. Be prepared that you may not have the luxury of going to your car or truck during the day to retrieve supplies.

FCC Call Sign Identification rules: While we'll use tactical call signs ("Race Net B", "Mile Marker 12"), FCC requires ARO identify with our designated FCC call sign at the end of a conversation. Thus, after you have completed your exchange and passed your message with Net Control, you should terminate your conversation by stating "Mile Marker 12/W4NUA". Likewise, Race Net Control B will respond: "Race Net B/K4M"

You may also hear Net Control providing a FCC Id on the hour, and their hourly identification is understood to achieve ID requirements for all the stations on the race net. The MCM uses the Special Event radio call sign K4M.

Although there will be a large law enforcement presence, each Medical, Water, and Food Station is responsible for maintaining the security of their possessions. Keep an eye on your belongings and keep them in a safe location. As items are kept in the open, recognize that theft is a possibility. If it's irreplaceably valuable, keep it on your person or in your vehicle.

Here are the normal assignments:

6.1. Aid Stations/Medical Tent

Eleven Aid stations are located along the racecourse and serve the needs of runners before they reach the finish line. Five Medical stations are located after the finish line and serve the post-race needs of runners as they proceed to the Finish Festival and Rosslyn Metro station. Aid stations are designated by numbered locations; Medical stations are designated by lettered locations. Medical personnel located at Aid stations triage and treat runners as necessary. Upon evaluation, runners are either treated and resume the race or administered aid until more advanced care is made available or the runner decides to end their participation and leave the racecourse. Medical stations provide more acute care for runners. Runners are stabilized until they are either able to leave on their own or are transported to more advanced care facilities. Medical station treatments frequently involve administering IV fluids, addressing severe muscle cramps, and (in some cases) severe heat stroke. AROs at either Aid or Medical stations are tasked with providing concise, timely communications that tracks the status of runners through the medical treatment process. AROs do not administer first aid or deliver medical care.

6.2. Water and Food Stations AROs

Assigned to Water Points and Food Stations, these AROs provide communications to Race Net Control on behalf of the station Office in Charge (OIC). Typically, they will report water or food supply status, or request resupply at request of the OIC. It is possible an ARO may need to call in a medical emergency to Race Net Control. They do not call in routine runner status reports pass their station. The Water Point and Food Station AROs report to Race Net Control

6.3. Shadows

Assigned to the five geographically aligned Division Commanders, these AROs provide communications directly to Race Operations Center (ROC) via the Med/Command Net, and possibly be required to call in information to the Race Net Control Station. Typically, they pass messages from the Division Commander directly to the ROC ARO. Note the Division Commander may be equipped with a MCM radio configured to talk to the ROC lead. The Shadows report to the Division Commanders.

The Top Doctor Shadow (“Top Doc” Shadow) serves as a liaison between the ARO operators and medical personnel located at the Race Operations Center (ROC). The shadow position requires the use of a handheld radio capable of communicating directly, or through repeaters, on the assigned medical net channels. This position requires a considerable amount of walking between locations since the Top Doc has to assess and coordinate changes in medical treatment in a highly dynamic environment.

All Shadow positions should expect to be extremely mobile and walk a significant amount on race day.

6.4 EMS Liaisons

The DC and Arlington EMS Liaisons are collocated with their respective EMS elements. They relay emergency medical information, from the Mile Marker (MM) AROS thru the Race Net Control Station to their respective EMS officials. The EMS Liaisons work with the Race Net Control analytics cell to track status of active emergency medical actions from onset to closure of the emergency. The EMS Liaisons report to Race Net Control.

6.4. Mile and Half-Mile Marker Operators

Mile Marker (MM) and half-mile marker AROs are the eyes and ears on the racecourse. They report three critical communication functions to Race Net Control: 1) report bib number of the first runner, first wheelie, and first duo past the MM (and ½ MM) location; 2) medical emergencies with details on runner bib number, exact location on racecourse of the medical emergency, and if possible some level of information about the medical emergency; and 3) any other potential incident or law enforcement emergency. The MM AROs report to Race Net Control.

6.5. Rear Pace Operator

The Rear Pace Operator rides along in one of the rear pace vehicles. There are two equally important duties. First, collecting the MCM ARO vests from the ARO volunteers as they pass their stations on the racecourse. Second, is reporting any issues with the rear pace convoy to Net Control or answering any questions from Net Control about the rear pace convoy.

6.6. Race Net Control Station

The Race Net Control Station is located at a secure location off the racecourse, and provides a direct line-of-sight to all repeaters and AROs on the racecourse. Comprised of Race Net A and Race Net B operators, plus an analytics cell, the 10 operators provide the command and control for the AROs at Mile Markers, Food Points and Water Stations, DC & Arlington EMS Liaisons and the Division Shadows prior to, during and after the race. The Race Net Control operators coordinate with the Medical Tracking lead, and reports to the Race Operations Center ARO. The monitor the Med /Command Net channels. Race Net Control reports to the ROC ARO.

6.7. Medical Tracking Lead

The Medical Tracking Lead ARO coordinates activities for AROs located at the Aid and Medical stations. This includes both voice and data communications associated with the medical tracking network. The Medical Tracking Lead reports to medical personnel located at the Race Operations Center (ROC).

6.8. ROC ARO Leads

The Race Operations Center (ROC) ARO Leads are normally the MCM ARO Special Project Officer (SPO) and their deputy. They are the direct liaison between the AROs, the MCM Command Staff, and all the other organizations supporting the MCM in the ROC. The ARO Leads have command decision authority over all MCM ARO activities. This includes tactical reassignment of personnel on race day morning due to personnel who do not report during check-in. The MCM Command Staff can direct the ARO Leads who will then relay directions to the AROs in the field. The ROC ARO Leads will monitor the ARO Command Voice Net, Command Chat, and as needed any Race Net or Med Net. The ROC ARO Leads will also be responsible for providing the APRS tracking display to the ROC staff.

7. Medical Needs and Emergencies

While supporting the MCM, you may witness a part of humanity that you've never seen before. This is most often the case at the Aid Stations but could be encountered anywhere on the racecourse. This primarily applies to runners, but you may also involve spectators along the racecourse as well.

- Some runners have very little modesty, so be prepared for that. It's common for runners, male and female, to expose a lot of skin while applying Vaseline.
- Be prepared to see runners vomit. They're not doing it on purpose.
- Be prepared to see runners unable to speak from exhaustion.
- Runners come from all over the world for the MCM and may not speak much or any English.

Most importantly you need to be psychologically prepared to handle the shock of seeing other humans in excruciating pain. Runners will cramp up and if not caught in time, it racks their bodies in pain so great they scream at the top of their lungs. You need to be prepared to see them writhing in pain and not be able to do anything about it. If you've never seen this before, you'll possibly become frozen. Just know that there are trained Medics who know what to do. Your job is to overcome your shock and use your radio skill to call for assistance to get those Medics on site. Some of you may have a tendency to want to rush to provide aid due to past first aid/medical training, prior military service, or for a multitude of other possible reasons, just remember your first and most important job is to communicate and get the professional aid the runner needs.

Be mentally prepared to see unresponsive runners carried into an Aid Station and have Medics work on them to save their lives. Critical life threatening medical issues are not isolated to Aid Stations, they can happen anywhere on the racecourse. This is a fact at a race of this magnitude.

REMEMBER, your job is to do one thing - Communicate. Move away from any situation that you find is uncomfortable, and especially if you're not needed.

You can't communicate if you're frozen in fear by the suffering of another human. You can't communicate if you get hurt because you're not paying attention and get run over by the mass of runners on the racecourse.

If a person needs medical help, allow the Medics to do their job. Don't try to be a hero with a band-aid. Your job is to communicate, effectively, judiciously, and under the helpful direction of your OIC in an Aid Station or the medical professions once they arrive on scene out on the racecourse.

You just can't cross a roadway to get to a runner as you might normally cross a street. You need to be mindful of the runners. They will not necessarily be paying attention to you.

You may need to carefully merge into the flow of runners upstream from the disabled runner and work your way down to them. The same is true of leaving a roadway. You may need to work your way down the road and merge onto the side of the roadway. Most importantly keep yourself and the runners safe when entering and exiting the flow of runners.

8. Self-Care

Everyone needs breaks, whether it is to use the porta-john, grab your lunch from a cooler, shed or put on a layer of clothes, or change a radio battery to name a few. If you are with another operator, one operator must always be at your post listening to the Net. That's why there's more than one of you. If you are the only operator at your post, prior to leaving your post or going off Net for any reason you must contact Net Control to inform them and get permission. When you get back contact Net Control to inform them you are back on Net.

Make sure you eat and stay hydrated. You can't communicate and be assistance to the runners and MCM staff if you become a medical casualty yourself.

9. MUST-DO'S

1. Focus upon your job. You are a Communicator. You must be able to communicate. A major part of communicating is listening to both those around you and to the Net. Be ready to respond when called.
2. **Read** all the material provided before the MCM. Bring a copy of the materials needed with you for reference on race day.
3. Pre-program into your radio the frequencies and PL tones according to the ICS-205 Form, and label them as directed if your radio can do that. **Test** all equipment before race day. Bring extra batteries and your radio instructions. (You might have to make a change or a correction on station!)
4. Be flexible to change. Adapt. **Semper Gumby!**
5. Get mentally prepared. Be confident. You can do it. You **Will** do it. You Will Survive.

You'll **never** forget the experience of the "Peoples Marathon".

73,

The Marine Corps Marathon Amateur Radio Leadership Team

10. Acknowledgements

I would like to thank the Boston Athletic Association (BAA) Amateur Radio Committee for allowing us to use their “Boston Marathon - A Practical Guide for New Communications Volunteers” as a template for this document. They had a great format and a lot of valuable information already in their guide.

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Most importantly, I want to thank all of you who have volunteered to support this year's Marine Corps Marathon. Without your time and assistance nothing we do would be possible.

73's

Scott Larimer – KN4RPA

2024 MCM ARO Lead