

## Manoa Coconut Wireless Program

The Manoa Coconut Wireless program is a communications network that will operate when conventional modes of communication (land lines, mobile devices, etc.) are NOT operational due to a major disaster like a hurricane. This program is made possible through the generous donation of FRS Radios (aka walkie talkies) from AARP. This program is being supported by members of Be Ready Manoa whose website can be found at: [Be Ready Mānoa - Together We Prepare, Survive and Thrive \(bereadymanoa.org\)](http://bereadymanoa.org)

### Radio Basics and Components

These radios operate in radio frequency bands that do not require an Amateur Radio or Ham License. These radios are low powered and do not broadcast very far, a couple of miles at the most. They work best when there is a clear line of sight and are affected by trees, hills and buildings.

These radios come with:

- Antenna
- Hand strap
- Charger
- Battery
- Belt Clip
- Earpiece and microphone

The battery is charged. To charge place the radio in the charger. The LED light in the battery charger will change from red to green when charging is complete. Depending on the charge in the battery, this could take up to 3 hours. Once charged remove from the charger. Re-charge the battery every couple of months. Setting a reminder on your phone is a convenient way to remember. The battery will last about 8 hours, based on 5%/transmit and 5%receive and the other 90% on standby. The radio will warn you when the battery is low.

On the left side of the radio are 3 buttons. From the top down they are:

- Push to Talk Button
- Monitor Button (not used)
- Turns on the Flashlight (should not be used to save on battery charge)

Along the top from left to right we have:

- Antenna
- LED Flashlight
- Channel Switch or Selector
- Power Switch and Volume Control
- Below Power Switch is another LED Light that will be green in color when listening to conversations or receiving. It will turn red when you are talking or transmitting. The LED light will be off if there is nothing going on.

On the right side of the radio is a rubber/silicon cover where you connect the ear piece/microphone.

On the bottom of the radio is a latch that needs to be pushed toward the front of the radio to release or attach the battery.

## Radio Operation

Turn on the Power Switch (right most button on the top of the radio). The radio will beep and tell you "Power On" in a female voice.

Next adjust the volume by pressing the Monitor Button (second or middle button on the left side of the radio) and listening to the noise. Green LED will light up.

Next, we need to tune the radio to the correct channel. These radios have 16 channels, from 1 to 16. If the switch is turned all the way counter-clockwise then channel 1 is selected. The radio voice will tell you the channel number. Turn the switch one click at a time to select different channels. The radios will transmit and receive on Channels 1 through 15, if Channel 16 is selected the radio will automatically scan channels 1 through 15 and select that channel if it detects someone transmitting on that channel.

Be Ready Manoa will be using the following channels here in the Manoa Valley and they will be monitored by Be Ready Manoa post disaster and for exercises:

If you live in

- Zone 1, use channel 9
- Zone 2, use channel 10
- Zone 3, use channel 11
- Zone 4, use channel 12

Refer to Appendix A for the zone maps.

Now we are ready to use the radio. To talk on the radio, you first need to ensure that no one else is talking. Allow that conversation to end before you start. When there is silence for a few seconds, push the Push-to-Talk button (first button on the left side of the radio), hold the radio a couple of inches in front of your mouth and speak in a normal voice. The LED light on the front right will turn red in color. When you finish your conversation/report let go the Push-To-Talk button. It is very important you do this as no one else can use that channel until you let go that button.

There is a protocol for talking on the radio. The first thing you need to do is decide who you are going to talk to. The conversation would go like this “Fred, this is Tom”, (much like the days before we had Caller ID on telephones). You have to wait for Tom to reply to you, “Tom, this is Fred”. Then you can have your conversation. Do not have a long-winded conversation. There could be others trying to talk or pass on information on the channel you are using.

Remember, anyone can listen in on your conversation, keep it polite!

## Expectations for the Manoa Coconut Wireless

The Manoa Coconut Wireless program is a communication alternative should there be a disaster – like a major hurricane – that may take out electricity and other conventional methods of communication.

1. Be Ready Manoa (BRM) is NOT a first responder. If there is an emergency and landline or mobile phones are working, call 911.
2. It will take time for BRM to set up its Incident Command Center (ICC). Use the walkie-talkie for communication within and between zones and share information until such time BRM makes itself available.
3. You must prioritize yourself and your family first. Use the walkie-talkie as an alternative form of communication only. Once BRM is able to set up its ICC, then more information can/will be shared to residents via the Manoa Coconut Wireless.
4. During the Central Pacific Hurricane season June 1 through November 30<sup>th</sup>, we will hold monthly practices. Practices will be held on the first Saturday of every month and last for an hour. The goal of the practice is to make you feel comfortable in using the walkie-talkie. We encourage everyone to participate. The general format of the practice is as follows:
  - a. First 30 minutes = practice talking to each other within your zone.
  - b. Second 30 minutes = practice talking to others from a different zone. This is important because you may need to 'relay' messages if obstacles prevent your transmission from reaching the ICC.
  - c. Keep a log of whoever you successfully heard/contacted. This will function as your 'contact tree' should you have to use the walkie-talkie.

## General Framework of the Manoa Coconut Wireless

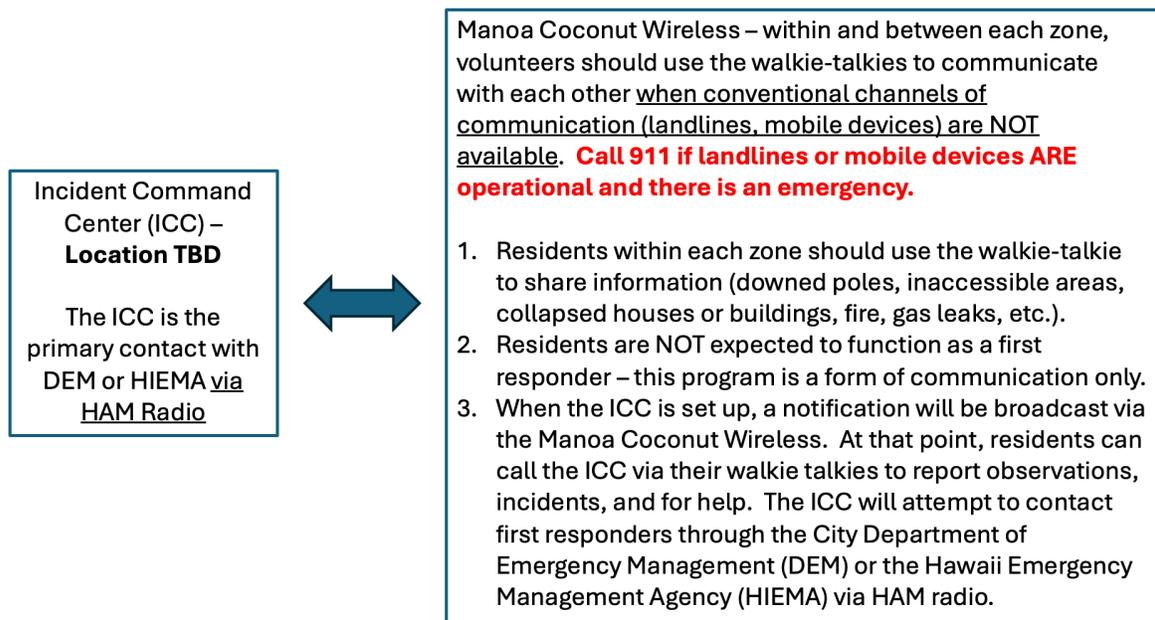
Post disaster, the Manoa Coconut Wireless will be the eyes/ears within the valley while we wait for first responders. You will be helping Be Ready Manoa by reporting what you find within your pocket of the valley. Be Ready Manoa will then report observations/first responder needs/other useful information to the Department of Emergency Management (DEM), City and County of Honolulu, by Ham Radio. DEM in turn will report that information up to Hawaii Emergency Management Agency (HIEMA), who reports upward to Federal Emergency Management Agency (FEMA).

The Manoa Coconut Wireless volunteers are the ones 'on the ground', and we can help each other through this communication network. The reality is we will likely

not see any First Responders for days – even weeks – after a major disaster. Their priority is to ensure the Hospitals are up and running, harbors and airports are functioning again, and the power plants are working. Once critical infrastructure has been stabilized, then they can start moving into residential areas.

A major hurricane will down utility poles, streetlamps, and trees – and we should expect that many of our roads will be blocked with debris. Our local fire station will likely be trapped in the valley, so it will be important that we have a way to communicate with each other. Once the Be Ready Manoa Incident Command Center (ICC) is operational, it will function as a communication liaison with the City Department of Emergency Management (DEM) or the State of Hawaii Emergency Management Agency (HIEMA).

Here is the high-level framework of how the Manoa Coconut Wireless will work.



**Mahalo for being a part of the Manoa Coconut Wireless Program! Email [ManoaCoconutWireless@gmail.com](mailto:ManoaCoconutWireless@gmail.com) to join or if you want more information about the program.**

## Appendix A – Zone Maps and General Boundaries

Zone 1 = Mauka of Lowrey Avenue and the area facing Waahila Ridge from East Manoa Road/Akaka Place



Zone 2 = Mauka of Lowrey Avenue and **the area facing Tantalus** from East Manoa Road/Akaka Place



Zone 3 = Makai of Lowrey Avenue and **the area facing Waahila Ridge** from Oahu/University Avenues.



Zone 4 = Makai of Lowrey Avenue and the area facing Tantalus from Oahu/University Avenues. We consider Punahou Street once you go past Judd Hillside the boundary for Manoa.

