KNW-115 GETTING TO KNOW YOUR RADIO

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Knowing how to access the basic functions on the radios that you use during an emergency response is an important skill as emergency communicators. There have been several incidents during public service events where an operator could not change a parameter such as frequency, tone, offset, power, etc. This affects net operations since an operator was not able to communicate due a radio issue. The time to learn how to operate communications gear is not during an emergency event unless you're using someone else's equipment. If that happens, it is the owner's responsibility to brief you on radio settings and to supply a cheat sheet or a radio manual…take good notes!

Since transceivers vary in their features and menu systems, this will be a general guide rather than offering specific radio operating advice. As mentioned, the best source of information is often the owner's manual. The table of contents and/or the index can narrow down your search quickly – check for them first. If you can download a copy of the radio manual to your computer or cell phone, searching for a word or term makes the job quick.

The **first basic item** is to learn how the **display** works, how to switch between displays and where everything is located. You want to be able to see if you are in VFO or Memory mode. You need to determine if it's a simplex frequency or a repeater in which case you need to identify the memory location of the repeater, the offset used and the tone mode type and frequency used.

The **second basic item** is how to change from **VFO to Memory**. VFO allows you to fix bad repeater settings or to quickly enter either simplex or repeater settings when necessary. Most recent transceivers have at least one VFO and a set of memories to save frequently used frequencies including the offset and tone of repeaters. You should also be able to save the contents of a set of VFO inputs to a memory location.

Since some transceivers contain a provision to display a memory tag rather than the actual frequency being used. You should be able to switch between displaying the memory tag and the actual frequency. Ask the transceiver owner for a **list of channels** so that you can easily find pre-programmed frequencies.

The **third basic item** is how to change the **frequency, offset, and tone**. These sound trivial but being off-frequency, using the wrong offset or using the wrong or no tone are the causes of the

majority of net communications problems. If you have a multi-mode transceiver such as an IC-706MKIIG or FT-817, you also need to know how to set the modulation mode. If you are on an FM repeater, you do not want to try to use sideband.

The **fourth basic item** is how to disable the Voice Operated Transmitter **(VOX)**, if applicable. VOX should never be enabled since it is possible for stray sounds around you to trip the VOX and interfere with the net. This ties up a communications channel and can be embarrassing when you say things to people around you that shouldn't go out over the air. The Hurricane Watch Net prohibits the use of VOX for this reason.

The **fifth basic item** is how to **lock and unlock the dial** to prevent inadvertent frequency changes. It is possible to inadvertently change the frequency by bumping the dial. I did that at the Houston Air Show…several times. Yep, it was embarrassing!

The **sixth basic item** to know is how to change the **power level**. You know that you should use the minimum effective power but things change and a clear signal can become marginal or downright unreadable so this is an important setting.

You should also become familiar with the other features on transceivers such as **Reverse**, **Mute**, **microphone levels**, **meter display modes**, **time-out timer** features and, of course, the **Power Button** among others that you might need.

If you are assigned to an EOC or other facility with pre-deployed equipment, then become familiar with the equipment before an actual emergency or net response. Have one of the operators already assigned to the facility or an owner of that transceiver model show you how to use the equipment. Prepare a 'cheat sheet' ahead of time and take a spare that you can leave by the radio for the next operator – laminated is better. Page flags are great for finding important settings instructions. As above, if you can download the manuals or otherwise obtain copies of them, do so and become familiar with the equipment before an actual response. This is also why it is a good idea to pack the manuals for your equipment in your "Go Kit". In the event that another operator needs to use your equipment, that operator can consult your manuals or use your cheat sheet. ALWAYS get signed receipts with verified contact information for your equipment, with serial numbers, if you must leave it in the hands of other operators. Ditto for equipment owned by EOCs, hospitals, etc.

That concludes tonight's training. Are there any questions, comments or suggested additions?

Thanks, this is (***callsign***) clear to net control.