

## **YOUR DETECTORS BASIC OPERATION**

By Ken Dewerson, Kelowna Metal Detectors.

At the last Club Hunt, I got involved in a discussion on Metal Detectors Operational Frequency, their Recovery and Response speeds and how they affect your detecting.

First let me say "There is no Best Detector" If you want depth, then this will be at the expense of Recovery speed and target separation. No matter what you have been told, you need to know which detector will suit your needs, then learning how to use it rather than changing it every time a manufacturer brings out a new model ( and that's from a Detector Dealer ).

Most Detectors today are Very Low Frequency ( VLF ), meaning 0-30 Kilohertz (KHz) stands for the number of times x 1000 that a wave current is sent and then received per second at the coil.

### **Low Operational Frequency 3-6 KHz:-**

are good at finding large targets at greater depths than higher rated KHz Detectors, and will operate well on wet sand. On the minus side, Recovery speed is slow (see below) and it doesn't respond to small targets.

### **High Operational Frequency 16-19 KHz:-**

are good at finding small targets amongst iron ( junk) etc. On the minus side, depth will be less than the lower KHz Detectors, also they will be a waste of time in wet sand.

### **Mid Range Operational Frequency 8-15KHz:-**

Most general purpose Detectors operate in this range and are neither the deepest or the fastest, but are not affected by the problems encountered by the others, these Detectors are the simplest to operate and give reasonable depth and sharpness of signals on most targets.

### **Recovery Speed:-**

Is the term given to the time taken for the Detector to recover from one target signal to be able to register the next. So how quickly does a Detector recover from an iron (nail) signal to respond to a good one? This all depends on the size and location of the iron object, that's the advantage of a smaller coil over a larger one.

### **Response Speed:-**

Is the time taken by the Detector to actually respond to a target when passed over it. The faster the coil is swept, the faster the response speed needs to be to give a good signal, however the response speed isn't adjustable.

So basically Response speed is vertical and Recovery speed is horizontal. The speed of your Detector sweep affects Recovery and Response speed especially in trashy ground.

A test garden in your back yard will educate you on your Detector.