Field Testing the 1270

by
Gene Scullian

How many metal detector companies can claim a 70th Anniversary Edition machine? Only one, Fisher Research Laboratory! An event this great calls for something special, enter the new 1270 Relic & Coin metal detector. I had the opportunity to field test this new machine and I would like to share with you what I have learned. Personally, I find field reports more believable when I know that the author has at least some minimal qualifications. That said; let me introduce myself so that you may know of my credentials. I have been metal detecting since 1977, and with the exception of only one year, I have been a very avid detectorist (some even call me a "fanatic"). I have been very active in our local club, the Four Lakes Metal Detector Club, serving many times as President and Vice President. I have been the editor of our club newsletter now for over three years and I have written two other field test reports, one of which was formally published. I won our clubs "Treasure Hunter of the Year" awards eight out of the last nine years. I have used many different brands of machines, some good, some bad, and many different models. I dabbled in water hunting back in 1984-85 (when we had to "float" our non-water proof housings), but stepped into it in a big way in 1991 with the purchase of my first Fisher machine, the 1280X. I am an avid researcher and a great deal of my free time is divided between water hunting and ghost town hunting. My second Fisher detector was the 1266, arguably one of the deepest detecting machines ever produced. I am not employed by any magazine, or by Fisher; this is strictly a freelance effort. When I was offered the opportunity to test the new 1270 model, I jumped at the chance. My previous experience with the 1266 left me anxious to see how the new 1270 would compare. The big question everyone seems to be asking these days, is how does the 1270 stack up to the 1266? The 1266 is already a proven workhorse and at the top of its class in depth capability. Because of the popularity of the 1266, I will attempt to compare features between the two, when applicable, but it should be noted here that the 1270 is a very different and more versatile machine, so in some regards there is no comparison between the two. My first impressions of the 1270 were formed when I opened the box, because I appreciated several things right off the bat. One, the lower stem assembly came preassembled; the coil was already attached to the lower rod. A minor detail, but it meant I didn't have to struggle pressing the lower stem into the coil flanges, or fumble with the screw and wing nut. Also, the coil was already plugged into the detector housing. Yet another simplification to assembling the unit. Within minutes I had the machine fully assembled and ready to use. Like most people, I wanted to begin hunting with it right away. Fisher has placed "Condensed Operating Instructions" right in the front of the manual. With a quick reading of one page, I knew the basics of how to set the machine so I could start detecting right away. I would be testing the 1270 in the soils of southern Wisconsin. Our soil here has a fairly mineralized. Aside from that the soil conditions I encountered were near perfect. For the four weeks I tested, we had more than average amounts of rainfall, and the soil was well saturated with moisture. One of the first things I do with every new detector I test is to do air testing using some standard items. I record this information and keep it for future comparisons. I don't put much emphasis on air-test depths, because actual in-ground results can be totally different, but it is a nice indicator when used for comparison purposes. All of the air testing I do is done with the exact same targets. I have carefully maintained a group of items so that my statistics always have a common basis. I was very curious to see how the 1270 compared to the 1266, and I was delighted to discover the results were nearly identical. A good indication to me that the 1270 was at least equal to the depth capability of the 1266. I was off to a good start. Knowing I only had a short time to test the 1270 I wanted to augment my knowledge of it as fast as possible. I did this by gleaning what I could from other users. I closely monitored the information being posted on the Internet, at the Fisher Forum (web site). At the time of my testing the 1270 had just been released and there were not yet many other people out there using this machine. Even so, I was delighted to discover that my experiences with it were nearly identical to what other users were reporting. As with any new machine, it takes some time to feel comfortable with its operation and the sounds, so I spent the first weekend hunting only local parks. I wanted to be familiar with coin "sounds" before I ventured to "older" and more "trashy" sites. I must admit that at first I did not like this machine, but it did not take long to win me over. I did not know it at the time, but before I would finish testing this machine, I would want to own one!

FEATURES

The 1270 has three main search modes: normal discrimination (NORMAL DISC); enhanced iron discrimination (IRON DISC); and all-metal ground balanced (ALL METAL GB). NORMAL DISC is a full range VLF slow motion discrimination mode, and you may adjust the amount of discrimination to suit your taste. IRON DISC is also a VLF slow motion discrimination mode. This may be the preferred method to hunt in when you wish to block small iron objects. This is the mode that greatly improves the machine's ability to "see through" the iron trash because of a very unique feature: it has adjustable discrimination that only affects iron targets. ALL METAL GB is the third mode, and it is a true all metal motion mode, manually adjusted by the user. This allows you to balance your machine to the exact mineral conditions of the ground you are searching, thereby creating optimum conditions to achieve maximum depth on targets. Many relic hunters choose this method of hunting to insure they are getting the

absolute best depth out of their machine. It has a "trigger switch" mounted under the control box, easily reached while you're sweeping the detector. It is spring-loaded and normally remains in the center position, which is the primary hunting mode. Pushing it away from you (forward) is the MODE SWITCH position, and pulling back puts you in the PINPOINT mode (an all metal no-motion mode). With the MODE SWITCH trigger in the normal position, you are hunting in the primary mode; when you push it forward, you have temporarily switched into the secondary mode. The beauty of the 1270 is that you have three different modes that you can choose from, setting any one of the three as your primary hunting mode. Additionally, you can also alternate between "secondary modes", which allows even more versatility. Sound interesting? It is! It has improved "see-through" in iron trash, an adjustable sensitivity control to enable silent search or audio threshold, and a "silencer" switch that allows for quieter operation. It is well balanced, lightweight (3.5 lbs.), and has a cushioned grip and armrest. It comes with the standard 8-inch concentric, coplaner coil that is submersible and interchangeable. Two drop-in 9-volt batteries are now loaded through the bottom side of the housing unit. There is also a "low battery alert" LED that begins blinking when the battery life nears about 1 hour of remaining power (I personally think this is a very nice touch!) The operating manual indicates that alkaline batteries will provide approx. 30-40 hours of operation. The unit also includes a double locking lower stem, a three-piece breakdown handle, and the Fisher limited lifetime warranty. It also has a standard 1/4" headphone jack on the front panel. When headphones are used, the speaker is disconnected. The 1270 is nearly 10 oz. lighter than the 1266, and it operates at a higher frequency (8.2 kHz vs. 4.8 kHz). I am not an engineer but I have been told the higher frequencies are slightly hotter on the lower conductive metals, giving the 1270 better response on relic-type targets and allowing for better iron discriminating control. The last feature worth noting is the operating manual. It is well organized, the wording is brief but complete, and individual sections are labeled very well with nice bold headings making it easy to quickly find the sections you are looking for. In addition to the normal descriptions and explanations, there are sections on Good Searching Techniques, Target Recovery, False Signals, and Ethics. All great information for beginners and veterans alike.

CONTROLS

Power On-Off/Volume; combination on-off switch and adjustable volume control (knob). Iron Disc; high-resolution iron discrimination knob for improved target "see through" in iron trash. Normal Disc; full range discrimination knob for normal search mode. All Metal Ground Adj / Disc; in "off" position - Norm Disc mode. In "on" position - all metal mode; adjust knob to ground balance. Sensitivity; adjustable knob for optimum target sensitivity. Full clockwise position provides a low audio threshold. Silencer; (switch) "on" for silent discrimination, "off" for normal search mode. Iron; (switch) "on" for iron discrimination mode, "off" for normal search mode. Trigger Switch; three position momentary contact, center position is primary search mode, push (forward) for secondary search mode, pull (back) for pinpoint. This list of controls and their functions may seem very intimidating, but be rest assured, with a little hands-on practice you will master their uses fairly quickly. The 1270 is a very versatile machine and it may take a bit of practice to be totally familiar with it, but many of the controls are set only once at 'start-up', and then forgotten. Since there are three different modes to choose from, you have a number of different combinations that you may set up. The following pair combinations can be set, and it's relatively easy to switch from one pair combination to any other:

(Example A) Primary = NORMAL DISC, Secondary = IRON DISC

(Example B) Primary = IRON DISC, Secondary = NORMAL DISC

"The ability of this machine to easily switch between a variety of different operating modes makes it a very versatile machine."

(Example C) Primary = ALL METAL GROUND ADJUST, Secondary = NORMAL DISC

(Example D) Primary = ALL METAL GROUND ADJUST, Secondary = IRON DISC

You might be asking yourself right now, "why would I need all these combinations?" Good question. The ability of this machine to easily switch between a variety of different operating modes makes it a very versatile machine to own. It allows you optimum operating conditions whether you're hunting highly mineralized soil, extremely trashy areas, or very deep targets. Example A (above) could be used for normal coin hunting, and allow you to cross check your targets for iron, to minimize digging those pesky items. Example B (above) could be used in very trashy areas, allowing you to "see through" varying amounts of iron and still cross check your target using normal discrimination settings. Examples C & D (above) would afford you maximum depth and allow you to cross check your targets using varying degrees of either full range discrimination (example C), or varying degrees of iron masking discrimination (example D). Additionally you always have the PINPOINT mode, which can help you differentiate between a large iron target and a small, deeper target (by the width and breadth of the audio signal).

Setting Primary Modes

Each of the three modes can be set as the primary operating mode. Subsequent adjustments within each primary mode will quickly become second nature, and you will then use the same procedure whether you are setting it as a primary, or a secondary mode. In other words, whether its primary, or secondary, you set it up the same way. The same is true of all the modes. The normal "default" operating mode is the NORMAL DISC mode. There is no on/off switch for this mode because it is the default. The other two modes (IRON DISC and ALL METAL GB) each have an "on/off" switch. To set IRON DISC as your primary mode, set the IRON DISC toggle switch to ON. To set ALL METAL GB as the primary mode, turn the ALL METAL GND ADJ knob to "on" by turning it clockwise from "0" to "1", and then ground balancing the machine. When in IRON DISC be sure ALL METAL GND ADJ is off (at "0"), and when in ALL METAL GB be sure the IRON DISC switch is OFF. When both are off, your are in the NORMAL DISC mode.

ALL METAL MODE

When ALL METAL GB is your primary mode, only the VOLUME and the SENSITIVITY controls are active, aside from the ALL METAL GROUND ADJUST knob. In this mode you must adjust the unit to the type of ground you are searching, by ground balancing the machine. You need to do this in a spot that has no metal in the ground so check the area first in the PIN POINT mode (pull trigger switch toward you and hold). Locate and area at least one foot square that is free of any targets. Next, be sure the sensitivity is set to about "8", and start out with the GROUND ADJ at about "1". Now raise and lower the coil to the ground two or three times (this is known as "bobbing"). If an audible sound is heard (as you lower the coil to the ground) then adjust the knob up towards "2" (clockwise). Repeat this process until no sound is heard when you lower the coil to the ground. You have now ground balanced your machine. It is a good habit to periodically check this while you hunt, as soil conditions can radically change from one area to another, sometimes only yards away. This all-metal mode is a "motion" mode, meaning slight movement of the coil is necessary to detect an object. There is also a second way to enter an all-metal mode, only this one is a "non-ground balanced" all metal mode. If you set your NORMAL DISC control knob all the way to "0", you switch into a (factory preset) automatic all metal mode (similar to the pin point mode). This allows you a second option for all metal hunting. I could not think of an application where I would want to hunt in this mode, since the ground balanced all metal mode will give you better overall depth.

IRON DISC MODE

Be sure the ALL METAL GROUND ADJUST knob is "off" (at "0"), and turn the IRON DISC switch ON. Set your sensitivity clockwise until you here a slight threshold (continuous hum), at about "8" or greater. Reduce the sensitivity if you prefer silent

search. When in this mode you have two features that enhance the 1270's operation: the SILENCER switch and the IRON DISC adjustment knob. When in really trashy areas you will hear a lot of "pops and clicks", indications that Fisher's powerful discrimination circuits are working. If you wish to reduce these sounds, turn the SILENCER switch ON. In most cases this will totally eliminate those noises. The IRON DISC knob allows you to adjust the amount of iron you wish to reject. This is my favorite feature of the 1270! At the low end of the adjustment range you will reject small nails and bits of iron. Turning the adjustment clockwise increases the amount of iron you will reject. You should experiment with the pieces typically found at your sites, to see where they drop out, and set your discrimination accordingly. This mode greatly improves the machines ability to "see through" iron trash to the good targets we seek! When IRON DISC is your primary mode, your secondary mode is NORMAL DISC, which you can switch to by pushing the trigger switch forward.

NORMAL DISC MODE

Make sure the IRON DISC switch is OFF, and the ALL METAL GROUND ADJ is OFF (at "0"). This mode allows you rejection of the full range of non-ferrous trash. You should experiment with your machine to determine your exact settings, but I found that if I kept this setting at about 5 1/2, I could still detect nickels. The operating manual has a detailed graph that you may refer to, showing the approximate numerical settings where different trash objects will be rejected. I find it better to simply test your own machine by passing the coil over a known trash item and slowly turning the discrimination knob up (clockwise) to see where the target drops out. To me this is a more accurate way of learning your machine. At the low end of the scale ("0"), all metals will be accepted; while at the upper end ("10"), most iron, foil, and aluminum will be rejected, while copper and silver will still give a good signal. Like the IRON DISC mode, you may eliminate unwanted "pops and clicks" by turning the SILENCER switch ON, and the sensitivity should be set as high as your preferences allow. Remember that NORMAL DISC is a MOTION mode and slight coil movement is needed for the coil to detect an object. When NORMAL DISC is set as the primary mode, the secondary mode is IRON DISC, which you can switch to with the trigger switch (forward). Now that you know how to set all the controls, you may be uttering out loud: "huh"? I must admit, the above instructions snowed me the first time I read through them. I was convinced that I would need to carry the manual with me at all times because I would never be able to remember all the settings and how to switch from one mode to the other. But keep in mind, even though there are four unique ways to set up your primary/secondary modes, you will probably only standardize on two variations to cover the majority of your detecting needs. If you both relic and coin hunt, I am sure you will use either the ALL METAL GB or the IRON DISC as your primary mode for relics, and the NORMAL DISC mode for hunting coins. Many coin hunters seldom, if ever, hunt in the all-metal mode. Civil War relic hunters seldom, if ever, hunt in anything BUT all metal. If you both relic and coin hunt, you may find that there are two mode pairs that you frequently use and switch between. Learn first how to set up and switch between those two operations. Some of the control settings will be set once at "start-up" and then be forgotten. For example, adjusting your discrimination and sensitivity levels will become second nature and you will probably always hunt with the SILENCER switch in only one position (depending on your preference). Once you are comfortable with setting up and switching between your two main modes, learning the others will be logical and easy just by default. You will have to trust me on this; it does all fall into place. To learn the settings, select the primary/secondary mode arrangement you think you will use most frequently and practice with it until you are comfortable with the controls. When I am coin hunting, I hunt in NORMAL DISC (primary) and IRON DISC (secondary). This gives me full range discrimination and the ability to mask iron objects. When I am ghost town hunting I hunt in IRON DISC (primary) and NORMAL DISC (secondary), unless the site is very clean. The sites I hunt here in Wisconsin are way too trashy to hunt in ALL METAL GB and I find I need the iron masking ability to knock out the unwanted iron. With IRON DISC set as primary I spend a lot less time digging trash and more time digging good targets.

"You will never have to leave a site again because it was too trashy"

FIELD RESULTS

After spending one weekend just getting used to the machine, I then headed for some older sites. My hunting partner was John Pynenberg. Our first hunt site was an old sledding hill in the village of Loganville. This particular hillside has been used for winter sledding since the late 1800's, and has been heavily hunted in the past. John had recently pulled a standing liberty quarter from this site. I did not expect a lot of trash here so I set my primary mode to NORMAL DISC and set the discrimination setting to 5.5, which would knock out everything below nickels. I set my secondary mode as IRON DISC, and adjusted the discrimination level to 5. The targets were few and far between but I did dig one nice piece of silver, a 1907 Barber dime. The signal was strong and loud, even though it rested at about 6 inches deep. John's finds were similar and his silver coin was a 1942 Mercury dime. After spending an hour here we headed for a turn of the century schoolhouse in Rock Springs, where John had recently got permission to hunt. This site had also been heavily hunted in the past, but its grounds were quite large and we were hoping we could find some things that the previous hunters had missed. I used the same machine settings as at the previous site. Again, the targets were few and far between, but yet again the 1270 pulled some deep coins. I was rewarded with a 1942 Mercury dime, a silver Roosevelt dime, and a 1908 Indian Head cent. The Indian Head was deep, easily 6 inches plus, but it was a good, strong signal. I also pulled several wheaties at varying depths and a handful of newer coins. Total coins this day 28, not bad for two hard-hit spots. In both locations pinpointing with the 8" coil was a snap, and I was doing it using the NORMAL DISC mode. On rare occasions did I even need to switch to the PINPOINT mode, and those targets usually turned out to be two coins near each other. With each target detected I would cross check it in IRON DISC and I did have three targets that were pieces of iron. The IRON DISC mode knocked them out each time, but I dug them anyway just to confirm what they were. Good sounding signals were always keeper targets and questionable sounding targets were always trash. If I did not get a good signal in both the east-west and north-south pinpointing axis, it was trash. I was impressed with how easy it was to tell good targets, based solely on the audio quality. A week later I would put the 1270 to the test at two sites that are heavily littered with iron. A ghost town site of mine would be the ultimate test, because there are several areas' here that I could not use the 1266 in, due to high concentrations of iron trash. I was disappointed to discover most of the area I wanted to hunt was sprouting 6" soybean seedlings, and impossible to hunt. A near-by area of foot-high corn was the only area I could swing a detector in. I hunted this area in IRON DISC (primary) with its discrimination setting at 6, and in NORMAL DISC (secondary) with its discrimination at 4. I was amazed at how well it knocked out all but large pieces of iron! It would have been impossible to hunt this site in all metal with any other machine, there was that much iron! I was impressed. No coins surfaced here but I did dig a flat one-piece button, part of a cuff link, and a .32 cal lead ball, all strong signals and all in the 4 - 5 inch depth range. I then headed to an old stage stop that I had previously hunted, and was again walking a planted corn field. This site too, was littered with iron, but not as much as the ghost town site. I used the same settings and was again amazed at how well this machine knocked out the iron! Two more buttons and another .32 cal lead ball went into my pouch. I should point out here that both the ghost town and stage stop site, have been heavily hunted by

FISHER M-SCOPE

myself, using a Fisher 1266 and another brand of detector, and both machines were equipped with 10 1/2 inch coils. It is a testament to the 1270 (using standard 8-inch coil) that I was able to find any good targets at all. In addition, the ghost town site has been "no-till" planted for the last 10 years (soil never gets plowed) and targets are now few and far between. After three weeks I felt very comfortable with the controls of the 1270, and I wanted to further test its iron masking ability. I really liked what I saw when hunting a trashy iron-infested site, but I wanted to further convince myself of the machines ability. Since I didn't have an actual site that was littered with dozens of coins at varying depths, and masked by varying amounts of iron, I had to again improvise. I air tested the unit with various silver and copper coins, this time pairing them with a couple of different sized rusty iron nails. I had hoped to mimic conditions often encountered in the field, when a coin target is buried near, or under an iron object. I also performed similar tests in a sandbox, burying items in the sand. I used the IRON DISC mode as the primary mode, with NORMAL DISC as the secondary. I was pleasantly surprised to find that once I set the IRON DISC control to knock out a specific sized nail, it worked consistently well on masking the iron no matter where it was near the target, including right above the coin. I never actually touched the nails to the coins because I have never ever found that to occur in field, but in many cases I only had a thick piece of cloth between them.These tests don't accurately depict actual conditions you will find in the field because coins that have been buried for long periods of time develop a "halo", making the target appear larger to the detector than it really is. Minute amounts of the metal actually "bleed" into the surrounding soil over time. But it did prove to me that the "see though" ability of the machine was indeed very true. There were times when I would get a slightly "broken" signal, depending on the alignment of my "X-ing" pattern. That is, if my left-to-right sweep was exactly across the liner axis of the nail, I might get a slightly broken signal (in that axis only, solid in the up-and-down axis). But, if I would rotate my stance slightly, 45 degrees to one side, I would then get good results and be able to pinpoint easily. Part of the reason for this was that the IRON DISC was set right near the limit of the size nail in question. If I turned up the IRON DISC (in this example), I would get a good signal no matter how I pinpointed. This is an important characteristic to know and you should dig enough of these "iffy" signals to convince yourself that it is either a good or bad signal. You could also crank the IRON DISC up a pinch and see if the broken signal changes to a good signal, indicating that an iron object near a good target has just been masked out. This is one of the ways that you "learn" what your detector is telling you.

CONCLUSION

I believe the relic hunters will consider the IRON DISC mode the most significant feature of this machine. When in this mode, you are really in an automatic ground balanced all metal mode (factory preset), but with the huge advantage of being able to discriminate out various amounts of iron, and you can adjust the amount of discrimination you desire. This feature will save you from digging a lot of tiny bits of iron trash. The IRON DISC mode will be a great secondary mode when you are hunting in ALL METAL GB (as your primary mode.) By adjusting the IRON DISC setting to reject nails for example, you loose virtually no depth, and by cross checking your signal in that secondary mode, you will virtually illuminate digging nails! Or, in really trashy sites, you can hunt in this mode as your primary mode, like I did, and have no fear that you are losing good targets due to "iron masking". In either case, it gives you a significant advantage. I believe that in time this machine will prove itself to be better than the 1266. I don't mean to minimize the 1266 here because it is a proven workhorse and will always have its place. But the 1270 has more versatility. Even if they are equal in depth ability, the 1270 is lighter, and has features that will afford you less trash digging and thereby increase your hunting time, which will in turn increase your finds totals. Because it is so versatile, you have a greater amount of site types and soil conditions that it can be used on. You will never have to leave a site again because it was too trashy and you only brought the wrong machine (one that doesn't mask out iron!) Iron trash will no longer be a deterrent to hunting in an all metal mode. In my book, that makes it a better machine. It did so well with the standard 8" coil that I cant wait to test it with the 10 1/2 inch this fall. The sites I really want to test it on have already been "picked clean" with other machines using 10 1/2 inch coils. But I will have to wait until fall, when the crops have been harvested. If I can pull some deep targets from these fields, then I will be convinced that the 1270 is deeper than the 1266. By the way, as a result of this test, I have added a 1270 to my arsenal of detectors!