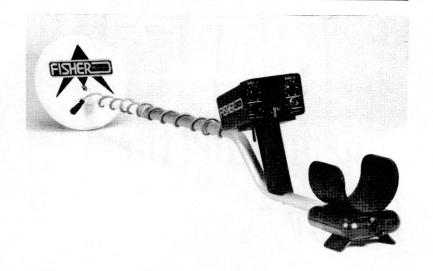
## CHAPTERVEN

## Outsmarting the Enemy

he current batch of sophisticated metal detectors available on the civilian market in the United States generally has a military background. However, it is tough to determine which came first, the chicken or the egg. Did commercial, hobby, and police metal detectors evolve as a matter of wartime necessity, or did the Vietnam War provide the technology necessary to develop superaccurate mine detectors? We do know that most military strategists in the United States were not planning to fight a war in which a major strategical component was caching and booby-trapping. Americans have typically attempted to substitute gadgetry for philosophy, and in their attempt to deal with strategic caching and booby-trapping, they developed some extremely sophisticated devices.

As a result, cachers must contend with highly sensitive, accurate, automated mine detectors. The only real difference between the hobby devices and the standard military units is ruggedness. Military mine detectors are made to be thrown in the back of a truck—something



The Fisher 1265-X is a sensitive, deep-seeking, general-purpose treasure hunter's metal detector. (Photo courtesy of Fisher Research Laboratory.)

commercial models would not tolerate for long. For a price, commercial metal detectors that will operate at up to 250 feet under water are available.

Some metal detectors exist that will consistently locate a metal pipe 35 feet below the surface or spot a penny edgewise 18 inches underground. With these gizmos, two or more people can walk 35 feet apart and thoroughly gyroop a wide orea years quickly.

thoroughly sweep a wide area very quickly.

Almost every metal detector manufacturer produces a unit that can be used under extremely difficult circumstances to find ore bodies, caches, lost weapons, pipes, and wires. They are often employed by professional treasure hunters, geologists, prospectors, public utilities personnel, and, of course, police. These sophisticated new units automatically retune themselves to compensate for wet and dry ground conditions and even for changing earth composition. Modern metal detectors can be set to scan for anything metallic, but



Sophisticated modern metal detectors like the Compass Scanner can be used under extremely difficult circumstances and can automatically retune themselves for varying ground conditions and earth composition. (Photo courtesy of Compass Electronics.)

once they pick up a buried object they can be adjusted to reject the object if it is a bottle cap, nut or bolt, or pop can tab.

Hobbyist treasure hunters do not generally use metal detectors because their weight and bulk leads to operator fatigue. Good ones are also extremely expensive, but officials looking for contraband weapons the cacher has displayed in public or has bragged about to the wrong people will not be deterred by expense or fatigue.

Conventional computerized metal detectors will find a firearms cache three feet underground 100 percent of the time. They can be set to reject most small trash, unless it has been in the ground a long time. A nail, for instance, will rust in a few years, spreading iron oxide into the surrounding ground and creating a larger target. Serious seekers won't be deterred by numerous decoys; they will simply assign some of their abundant labor force to follow behind and do the digging.

It takes about twenty to thirty hours of intense practice to become proficient with a metal detector. Because they are tiring to operate, this can be mean four or five solid days. Operators must learn how to read the signals they are receiving to determine whether their find is something of value or simply ground clutter. Very old sites that people have occupied for several hundred years or more will have a huge amount of ground clutter. Some treasure hunters claim that there are more lost coins in the ground than are currently in existence. This does not include bottle caps, nails, wire, and hundreds of similar items that are lying about.

Within the large city, state, and national enforcement groups, there are operators who spend hundreds of hours practicing, giving classes, and consulting with similar officers. Civilian treasure hunters hold regional meets where birds of a feather go to compete.

Often these people are searching for nonferrous metal, which is generally much harder to find than steel or iron. Relatively speaking, the steel used in firearms can be detected more easily and at a greater depth than anything else.

To some extent, soil conditions limit the ability of metal detectors. Historic or current tidal flats contain residual salt that acts as a deterrent. Finding a cache in salt water along the coast is a bit more difficult, but a skilled operator with the correct equipment will not be slowed perceptibly.

Some regions of the United States are characterized by extensive layers of black sand, a nickel-iron elemental material that metal detectors have problems penetrating. Much of the western United States has at least intermittent deposits of black sand that, to a small extent, will protect the integrity of a cache. Treasure hunters operating in this environment usually compensate for black sand interference by switching to sixteeninch coils on their detector probes.

Cachers in heavily mineralized areas of northern Wisconsin and Michigan can also expect the authorities to have a tougher time finding their caches. Native iron in the soil plays havoc with metal detector readings. Still, a skilled operator who runs a metal detector over cache tubes containing as few as three rifles stored receiver down will have no trouble determining something is down there. Even where there are fairly heavy concentrations of iron, he will be able to find rifles buried a foot below the surface. The metal detector may miss one rifle, but the cacher should assume that others might be found.

In central Georgia and Alabama the soil is heavy clay with a high percentage of limonite. Again, these conditions may limit an unskilled operator to some extent, but will not deter the seasoned operator. Conversely, Georgia clay tends to have a high moisture content that will materially add to the ability of the metal detector to see down into the ground. Wet to damp conditions usually produce deeper, better readings.

With the modern, computerized metal detectors that automatically compensate for changes in ground conditions, if one moves from a black sand area to clay, the machine adjusts to a great extent. Ground conditions that fooled World War II mine detectors do not even slow down modern units. Animal excrement that confused earlier detectors, for instance, has no effect. Valid readings are made quickly and easily in pastures and corrals.

Certain conditions may sometimes baffle some operators, including old barn sites, horse pastures, and

places where trash was buried, oil was spilled, welding was done, and mechanical work on vehicles was undertaken. However, unless these conditions exist in large numbers lying side by side, operator confusion is usually short-lived. If a searcher is really serious, he will simply call in members of his team to probe the entire area.

All of this makes successful caching of steel weapons sound like a losing proposition. It is true that if a skilled operator runs his coil over your cache, he will probably find it. Yet, there are several additional golden rules of caching that will assist you mightily. When judiciously applied, they will swing the pendulum back in your favor.

The first is the rule of squares. This involves the simple mathematical principle that when you double the distance from a point, there is approximately four times as much territory involved. Placing your cache not 100 feet but 200 feet out from your retreat will quadruple the territory over which the bad guys must drag their metal detectors in order to find it. At 100 feet, for example, they have 31,400 square feet to examine. At 200 feet there are 125,600 square feet involved. This is almost three acres. Take the cache out 1,000 feet or more and the search chore becomes virtually hopeless. As mentioned earlier, I believe burying in the middle of rural gravel roads is an excellent idea. Under these circumstances, your cache could range as much as five or six miles from your home.

At these longer ranges, it may pay to bury false targets, such as old bolts, nails, and trash. A search party looking as far as 1,000 feet from a retreat must thoroughly, inch by inch, cover a total of 3.14 million square feet. This is about 71 acres. Under these circumstances, 50 pounds of sixteen-penny nails scattered around would be very disconcerting.

A second rule states that the cache is less likely to

be uncovered if it is located in a place that is difficult to search—where burying, mechanical work, or even stray dumping once occurred, for example. Like the Vietnamese, I would seriously consider putting a cache tube in a local cemetery if possible. Most cemeteries are open to visitors and can be accessed by car. Little rural cemeteries are much better, but some readers may not have access to these. You could almost guarantee that a cache tube in a cemetery would never be found. Ponds, streams, marshes, and lakes all fit into this category as well. A survivor in Indiana once showed me his cache tube jammed up under the bank of a creek.

A third rule involves placing the cache in a place that is virtually impossible to search. For instance, in grain bins and silos, under pig pens, and in piles of coal, gravel, firewood, or boards are all good options. These locations should be places searchers cannot check out thoroughly.

Since metal detectors do not work well in close proximity to large amounts of steel, it would be virtually impossible to locate a cache buried a foot deep in a junkyard, used car lot, or tank farm. Other than the multitude of scrap lying around just under the ground, the device would detect nothing.

Farmers and ranchers often have empty lots where they park their old, worn-out trucks, tractors, and machinery. Assuming the lot is quite large, it might be wise to put a cache tube under an old implement, knowing it will prevent the metal detector from functioning properly. This is often possible even if the lot does not belong to you.

An acquaintance in Arizona lives half a mile from an old dump that was closed in the late '50s. I suggested that he put his cache tubes in the dump ground. Metal detectors will not work at all there, and the dump site is close enough to his home that he can monitor the situation on a daily basis.

Burying in unlikely, difficult places off of your own property is almost always wise. Think seriously about placing a cache tube in the backyard of the neighborhood curmudgeon. This is the kind of person who will force the authorities to secure a warrant before they enter his property, assuming they will ever think to look there. If the location is far enough from your own property, the ruse will work every time.

It does not take much planning or bravery to creep into the curmudgeon's yard with post hole digger, tarp, and soil bags in the dark of night. Once the tube is in place and the soil carefully replaced over the hole, the cacher can return again and again in the wee hours of the morning, or whenever, to inspect and replace the weapons. Caches can be placed in an unwitting accomplice's rose bed, behind his garage, in his garden, or even inside his barn. I once stowed a plastic-sleeved .22 rifle in a neighbor's hay manger for several months, and I am sure he never suspected a thing.

Caching in difficult, unusual places where conditions are tough for searchers makes a lot of sense. Be certain, however, that the weapons that are cached predate the 1968 gun act or have been traded around informally to the point that they are not traceable by the authorities. Should Uncle Sam send his representative to the door inquiring about the Valmet assault rifle the local dealer records show as being sold to you and the weapon is hidden in your cache, you may be stumped for an acceptable answer unless you have thought that one through.

In the final analysis, the greatest single device for outwitting metal detectors is to put as much distance as possible between you and your cache. Keep a low profile when checking it, returning as seldom as possible. In some cases, it may be appropriate to visually check from the road for problems, only uncovering the actual cache every two or three years!