Guide to TREASURE

You Can . . .

Find Wealth in the SURF

by Charles Garrett

You Can FIND WEALTH IN THE SURF

Wade out into the ocean with me. Let's get our searchcoils wet…get away from the others…and find some REAL *treasure*!

What's that? You say that you already hunt on the beach…that you've already proven how productive it is…and that you already know how many hobbyists never hunt here…that already know about the Spanish galleons but you don't scuba dive.

All that may be well and good. But, I'm not talking about dry and sandy beaches or even wet and marshy tidal flats. I'm talking about a *treasure vault* the likes of which you may have never seen. I'm talking about a place where you can do your best any time of any day…spring or summer… winter or fall. And, it's a place filled with treasure and not filled with treasure hunters.

Of course, I'm talking about the surf…out beyond that foamy line where land meets sea…out where treasure lies waiting for your metal detector. It's one of the hottest and newest treasure hunting locations. Surprisingly, however, not many metal detector hobbyists venture into the surf…which is a blessing for those of us who do…because this is one of the richest of all areas for seeking lost treasure with a metal detector. The ratio of water hunters to land hunters is easily 100 to 1! Isn't that amazing when you consider the treasure to be found? Of course, water hunting seems to require a few more skills which we will discuss, and there are perceived dangers you won't find on land such as stinging jellyfish. Believe me, however, when I say that about the only way you'll ever get tangled up with one of those nasty fellows is to work with your eyes shut.

If you could search just one small spot in the surf off a crowded beach every day for the rest of your life, you'd *never* empty the treasure vault just lying there. You see, this vault is being replenished continually by ocean waves and tides…night and day…month after month after month.

Out in the surf is where you will find treasure hunters who are a bit more adventurous…a lot more successful…and a great deal wealthier.

Maybe you've thought about surf hunting. Maybe you've watched the tide wash over the beach and thought about all the treasure you found there just that day…and envied all the treasure you *didn't* find…treasure that you now believe you are watching wash out to sea.

Although the jellyfish really never bothered you, perhaps you've avoided getting in the ocean because you thought it required spending a lot of money for scuba gear or because you worry about deep water.

You knew about treasure waiting beyond the water's edge, but somehow…

This *Garrett Guide* is designed to answer three basic questions that will let you join that happy, successful and wealthy band of surf hunters:

-How can I find treasure in the surf with a metal detector?

-How is hunting in the surf different from beach hunting?

-Where can I find treasure in the surf?

WHAT IS SURF HUNTING?

Yes, what exactly is surf hunting? Where does beach hunting end and surf hunting begin?

Visualize, if you will, the seashore divided into three sections or "zones." Zone Number 1 is the actual beach that you may have searched so many times…that sandy spot between parking lot or road and the tidal mark. Sometimes it stretches across an island from bay to ocean. But, the "beach" generally stays dry except during storms and flood tides.

Zone Number 3 is the deep water expanse stretching out as far as the eye can see. It's where the sunken galleons lie…where there is truly great treasure to be found by underwater divers with metal detectors. But, it's a place for scuba gear, specialized equipment and divers with some training.

It's Zone Number 2 that is our area of interest…our treasure vault…the area where a beginner with the right equipment can be successful. It's the shallow surf from the foamy water's edge out into the ocean five feet deep or at least as deep as you feel safe standing on your feet. Here's where the treasure awaits you-coins and jewelry, wealth of all kind. You know why it's here, don't you?

Every treasure hunter learns that lost wealth is to be found in those places where people congregate or have congregated. If there is one special "place" in the history of mankind that has continually drawn people, it's the ocean's edge…that "place" where surf washes over the beach…where land meets sea. Men and women have been drawn here since the beginning of time; they have brought their possessions with them; and they have lost valuable wealth. Some of it lies buried beneath beaches, but the vast bulk of it has been washed into the ocean.

The process continues to this day. Prove it to yourself by trying this test. Visit any local park on a pleasant spring or summer day. Count the people and watch their activity. How many did you count? Chances are that you saw a few dozen, maybe a hundred. What were they doing? They were probably walking, picnicking or perhaps engaged in some sports activity.

Now, drive to a local swimming beach. Make the same observations. How many did you count and what were they doing? You probably counted the same few dozens or one hundred, plus several hundred more who could lose valuable treasure. And, they too were walking, picnicking or engaged in some sports activity. But, their frolicking and horseplay in the surf or dunes seemed far more likely to dislodge jewelry and other treasures than the sedate activities of a park.

WHAT IS LOST?

Treasure is being lost at that beach *every day*. And, I don't mean "cheap" treasure. People consistently wear expensive jewelry while sunning or swimming. They either forget they have it on, or they don't understand how they could lose it. It can't happen to me, they must think. But, it can…and it will!

Surf treasures awaiting the metal detector include coins, rings, watches, necklaces, chains, bracelets and anklets, religious medallions and crucifixes, toys, knives, cigarette cases and lighters, sunshades, keys, relics, bottles, fishnet balls, ships' cargo and other items that will soon fill huge containers. And, for some lucky, persistent and talented hunters, their dream will come true. They will indeed find that chest of treasure hidden by some buccaneer of 17th century Spaniard who never returned to claim his cache.

It's hard to understand why people wear jewelry to the beach and into the ocean. Yet, they do, and they often seem to forget about it…even those valuable heirlooms and diamond rings. But, whether sun bathers and swimmers care about losing their possessions or not, it's just the same for the surf hunter. All rings expand in the heat; everyone's fingers wrinkle and shrivel in the water and suntan oils merely hasten the inevitable losses. Beachgoers play ball, throw frisbees and engage in horseplay. These activities fling rings off of fingers and cause clasps on necklaces, bracelets and chains to break. Into the sand and water drop valuables where they quickly sink out of sight to be lost and usually washed out to sea unless recovered first by some beach hunter with a metal detector.

How many times have you watched coins, jewelry, keys and other beach "necessities" being placed oh-so-carefully on the edge of a towel or blanket? Then, in a hurry to escape a sudden storm or just through carelessness, the sunbather grabs and shakes the blanket. There go those "necessities" into the sand. Even though the valuables are sometimes immediately recovered, many are never found before high tide washes them into surf hunting territory.

Boys and girls play in the sand. Holes are dug, and sand is piled up and made into castles and other elaborate structures. In this process toys, coins, digging tools, jewelry, knives and other possessions

are lost in the sand…until the inevitable waves sweep them off the beach where they're lost to all except the surf hunter with his metal detector and keen eyes.

The tale of one such pare of keen eyes on the beautiful beaches of Grand Cayman was related by my good friend Robert Marx. This surf hunter spotted something shining on the sandy bottom in shallow water. To his astonishment it turned out to be a gold cross covered with diamonds. Without telling anyone, he returned later and really struck it rich. Using only his hand to fan away thin layers of sand in the shallow water, he recovered a fantastic cache of treasure, including a large bar of platinum dated 1521, various bars of silver bullion, a silver bracelet in the form of a serpent covered with emeralds and a large gold ring bearing the arms of the Ponce de Leon family. Since there is no evidence of a shipwreck ever having occurred in the area, the treasure-perhaps the booty of a conquistador-was probably buried ashore and washed out into the shallow sea as the beach eroded.

Few are this lucky-and, believe me, luck is important to the treasure hunter, no matter how great his skill and training-but treasures await all of us in the surf, ready to sing out in response to the signal of a modern metal detector.

Finally, I must point out that in addition to the increased monetary rewards of surf hunting you'll receive physical and spiritual benefits. You just can't help but be healthier at the end of a long and vigorous hunting session. I always feel terrific following a day in the surf. I've spent weeks searching the surf of Caribbean beaches in hot and humid weather. Yet, following a day's hunting of six to eight hours, all that is needed to refresh me for the next day is a hot shower, a good meal and full night's sleep.

You don't fatigue when you work the surf-even in the 100-degree heat of the tropics. The sea breeze, the water all around you, the excitement of the hunt and the thrill of discovery…all of these contribute to a sense of pleasure, satisfaction and self worth.

WHAT ABOUT EQUIPMENT?

You're probably wondering if you'll have to get a new detector to hunt in the surf…if you'll need a lot of special gear. Of course, the answer depends on what kind of equipment you're using now. When you encounter a target in the surf, you'll obviously have to recover it differently from the way you did in the park or on the beach. And, the waters themselves, especially ocean waves, present conditions you'll have to face and accept.

When you use a land detector in the surf, you must absolutely prevent the control housing from getting wet. Ingenious hunters have devised various effective waterproofing methods. One built a shoulder platform that keeps his detector not only high and dry, but also places speaker near his ear should he not be using headphones for some reason. Another hunter installed his electronics and controls in a construction worker's hat. I've seen photos of this rig and it appears quite functional.

If you question whether your searchcoil is waterproof, don't hesitate to ask your metal detector dealer or manufacturer. All searchcoils manufactured by Garrett are fully submersible but not all searchcoils on the market can be safely submerged. There are three designations you should become familiar with: splashproof, waterproof and submersible.
Splashproof means the searchcoil can safely be used in wet grass and weeds. Waterproof means the searchcoil can safely be used in heavy rain. Submersible means the searchcoil can be safely submerged in water to the cable connector, which describes Garrett's Crossfire searchcoils. In terms of depth, submersion is about 30 inches. To insure a searchcoil's water tightness, apply a bead of silicone rubber around the cable where it comes out of the searchcoil.

Most land searchcoils are buoyant. You must add weight to give the searchcoil either neutral or slightly negative buoyancy. A small sandbag or other weight can be attached to the top of your searchcoil, and some surf hunters fashion specially shaped weights made of lead or cement. Others pour lead into the stem itself to keep from adding extra drag and water resistance. *Make certain that lead and/or other metal is kept at least eight inches above the searchcoil* . A weight of from one to three pounds is usually necessary.

I prefer that my detector float somewhat vertically so that the searchcoil "bobbles" near the bottom. This keeps the handle near at hand. When I have recovered a find, I need only to reach over and take hold of the detector handle to continue my search. Some hobbyists recommend letting the stem and searchcoil float on the surface during recovery. This involves extra work and effort because you have to reach up to grab the handle and then force the searchcoil down t o the bottom each time you stop to inspect or recover a target. To achieve the proper "float" and angle, it may be necessary to add buoyancy

material such as cork or sytrofoam to the *upper* end of the stem. Tape the cable to the stem at a point near the searchcoil to prevent it from snagging on objects.

YOUR SURFING DETECTOR

No land detector can be as efficient as a submersible detector designed to be used in the water . There are submersible models such as the Garrett Beach Hunter AT4 and Sea Hunter XL500 that were designed especially for maximum performance in the water. Their design prevents water from seeping into the control housing and searchcoils. Both land (non-submersible) and underwater headphones are available for both models.

I don't recommend a land detector for working water more than knee deep. If fact, I don't recommend using a land detector for any extended water hunting. It's too easy to become lax and forget about your detector. And, believe me, when you're in the water all of your equipment requires *constant* attention. I recall once while working the water's edge on a beautiful Cozumel beach, I was having good success. Because I was digging in dry sand, I wasn't paying particular attention to the action of nearby waves. When I stopped scanning to recover my next find, I carelessly laid my detector too near the water. Splash! Here came a high wave to give my control housing a good bath, and searching for the day had ended-at least, with that detector!

Your choice of an instrument for hunting in the surf should be either an automated VLF model or a Pulse Induction type. The AT4 Beach Hunter features automated VLF circuitry with a unique dual ferrous/non ferrous Multi-Range Discrimination circuit. This circuit lets you select the metal objects you want to recover and rejects those you don't. You can accept most rings while rejecting pulltabs. Automated VLF circuitry needs no ground adjustment. The circuitry ignores black sand, iron earth minerals and salt water-automatically. This type detector and the Pulse Induction are by far the easiest to use in the water. You simply turn on the power and adjust the audio for slight threshold or silent running, if you prefer.

True Pulse Induction instruments automatically ignore iron earth minerals and salt water. Some models feature the ability to reject such trash items as bottle caps and aluminum pulltabs. Elongated iron objects such as small nails and ladies' hairpins will be accepted, however, and some rings may be lost when the detector is adjusted to reject aluminum pulltabs.

MORE ON DISCRIMINATION

What about discrimination for a water detector? First of all, treasure hunting books-mine as well as others-probably contain more information and recommendations about discrimination than any other subject. Some say discriminating metal detectors are practically worthless in the water; others swear by them. I'm talking about experienced and successful surf hunters now, in addition to writers.

Since I fit in both categories, I'd like to review the merits of discrimination and let you make up your own mind. Before starting however, let me emphasize that there are no "rules" when it comes to target discrimination. As you probably know, discrimination is simply a term that detectorists use when discussing certain characteristics or capabilities of metal detectors. These instruments will detect the presence of all types of metal because that is the purpose of metal detection.

There are many, many metal objects in the ocean surf that are of no value to most hunters, namely bottlecaps, pulltabs and other man made trash. Since your main purpose in surf hunting is principally the recovery of coins and jewelry, you don't want to waste time digging "junk" items. We manufacturers have devised various detection methods (circuits) to measure and compare a target's conductivity with a predetermined value. Fortunately, most good targets have higher conductivities than trash targets. Trash, or low conductivity, targets read as "bad" or "reject." Gold, silver and copper have high conductivities.

The shape and mass of good targets sometimes cause difficulty. Rings are circular; unfortunately, so are aluminum pulltabs. Since aluminum is a relatively high valued conductor, some rings and pulltabs *look the same* to metal detectors. For decades treasure hunters dug many worthless targets to get rings. Detectors with discriminating circuitry such as our Garrett AT4 are designed to indicate with 75% to 85% accuracy the difference between most rings and pulltabs. That accuracy level is acceptable to most hunters.

When a detector makes a decision about the conductivity of detected metal, it evaluates the combined conductivity of *all* metal objects within the field of detection. If, say a high conductivity ring

and a low conductivity bottlecap are lying in close proximity to each other, the detector reads their combined conductivity which will be lower than that of the ring. The detector may then read the detected "target" as "junk." That's why some hunters say discriminating metal detectors are no good for water hunting. They say they *dig all targets*, or they have developed a *system* for discriminating that lets them dig mostly good targets. They say that strong detector signals mean that the detected target is shallow and, therefore, it must be junk. They tell you to dig only weak target signals. Also, they tell you to ignore double "blip" signals which mean the detector has just detected a nail or a similarly shaped iron object.

WHAT DO I SAY?

I say that the application of such theories may not improve your treasure/trash ratio any more than using a small amount of discrimination or one of the pulltab-reject detectors. All loud signals *may not* be junk targets. Often, water hunters dig shallow treasure that has just been lost or that a recent storm brought up from the deep. Also, a junk object standing on edge may produce a weak signal. Any experienced hunter will tell you that a ring or a coin standing on edge can produce a double "blip."

Here's my recommendation: Use a surfing detector with discrimination you can always turn the discrimination off. Then, when you want to use it, turn it back on. Vary the amount of discrimination you use; experiment. In some trashy areas with small iron targets, a slight amount of discrimination will avoid much of the trash and sacrifice little, if any, treasure. Since you will at least spend more of your time digging better targets, this may swing the balance in your favor. Also, pulltab rejection detectors let you spend more time digging for better targets. Yes, you will probably miss a ring or two; so, obviously the decision is yours.

I urge you to experiment. When you use various degrees of discrimination, keep a record of your finds. Also, work an area thoroughly using pulltab rejection. Then, rework the same area using no discrimination. Compare the results. Keep in min, however, that since no area can ever be *fully worked*, your comparisons will never be 100% accurate.

When I discuss pulltab rejection, I refer to discriminating detectors that permit specifically selected objects to be rejected or accepted. (The Garrett Beach Hunter AT4 is such a model.) Discriminating detectors that do not have this selection feature will reject a larger percentage of rings when pulltab discrimination is dialed in. so, be knowledgeable in your judgment on discrimination. It is not complicated. Study the literature about various kinds of detectors, then question your dealer or manufacturer until you fully understand how detectors work.

Final thoughts on discrimination: Surf hunters with discriminating detectors sometimes find it very difficult and frustrating to work heavy trash areas. Some even refuse to work areas with a great deal of trash, preferring more productive sites. I recommend that while you not seek out locations with trash, that you not avoid them either. Start by using only enough discrimination to reject small, rusty iron pieces. If you are still digging an overwhelming amount of trash, dial in more rejection. You may be able to settle on an adjustment that lets you recover a fair share of good targets without digging too much junk. Also, use a smaller diameter searchcoil. Those with a diameter of four inches or so are known for their efficiency in junky areas.

Some surf hunters will tell you not to use discrimination because you will lose silver and gold chains. It's not just discrimination that sometimes causes these items to be lost; it is also their shape. Eddy currents must be generated on the surface of metal for the object to be detected. Since chains have such a tiny surface compared with their mass, these items present a poor target for detection. Consequently, you will locate about as many chains using a normal amount of discrimination as you will if you don't use any-especially if the gold or silver content is high. Start your training period using no discrimination. Pay attention to all signals. Especially learn the difference between Belltone (if your instrument has this capability) and regular sounds. Dig all targets and *remember their signals*. Gradually work with increasing discrimination until you are confident of the full capabilities of your instrument. Your efficiency will improve in proportion to your expertise. And, always evaluate every site; you will find that no two are alike.

SPEAKING OF SITES

The dedicated treasure hunter always seeks out sites through research. Beyond that, experience must be the teacher. Inquiring and attentive hobbyists will continually pick up ideas that will often rescue them when studying a new area. My books and those of other treasure hunters list numerous research

sources where both general and specific leads can be found for searching surf locations with a metal detector. As the hobbyist researches these various sources, techniques and abilities will improve. That's why I urge anyone to apply himself or herself to water hunting for at least a full year before attempting to judge this aspect of treasure hunting. And, when you seek to carry out the research that I or other writers have recommended, I implore you not to be haphazard or sloppy. Be diligent and methodical; your progress and success will amaze you.

Always begin locally. Your home territory is the area you know best. What if there's no treasure in the surf at home, you ask? Don't you believe it! Just get to work on research. Use every source of leads and information; seek out old timers; visit chambers of commerce and tourist bureaus. Don't forget historical societies leave no source untouched in your investigation of an area. To speed up work, always be specific. Ask about information concerning both past and current swimming beaches, resorts and recreation areas. You want to know where people play in and near the water today and where such places were in years gone by.

In your research pay close attention to mentions of shipwrecks. And, when you encounter flotsam in the surf never overlook the possibility that it might be washing ashore from some shipwreck-perhaps one that occurred many years ago but that has just been broken up by a storm. Regardless of the age of a wreck, some cargo will probably remain in fair to excellent condition for years, decades or even centuries. This is particularly true of gold, silver and bronze objects. Gulf Coast and Caribbean shipwreck locations still yield gold and silver from the mines of Mexico and Peru. Precious metal from California and other Western states can be found along the Pacific coast.

When researching reports of shipwrecks, use all sources. Seek out Coast Guard and Life Saving Service records. Newspaper files and local and state histories are good sources of information. Insurance companies and Lloyd's Register may provide precisely the data you need.

THE "BEST" PLACE

To find treasure you must begin by being at the right place at the right time with the right equipment. Research sources will indicate the right place; knowledge of weather and tides should get you there at the right time.

Wouldn't it be great if the ocean suddenly receded several feet? You could wander farther out in the surf to areas you've never searched before. You could recover lost treasure so much more easily. Well, the ocean does recede slightly every day during low tide. About twice a day a full tide cycle occurs-two high and two low tides. It's low tide that interests the treasure hunter…when the water level has dropped, letting you get farther out in the surf. A drop of only a few inches in tide level can take the ocean several yards farther out, especially on gently sloping swimming beaches. This exposes more beach to be searched and also makes more shallow surf area available.

You can learn when maximum low tides occur by reading tide tables in newspapers or obtaining them from scuba shops or fishing tackle stores. Weathermen on radio and television in coastal cities often report times of high and low tides. On some days, especially after a new or full moon, tides will be lower than usual. Take advantage of these opportunities.

The successful surf hunter will begin working before low tide and continue until the ocean begins to rise. Be alert to lowest or ebb tides when you can work even farther out in the surf. Timing search periods is important. I try to begin hunting in the surf just before low tide and then follow the tide out, working a parallel path hugging the water depth. Each return path is nearly parallel to the preceding one. When the length of the paths is too long, each path will veer outward as the water recedes. Wide searchcoil sweeps can offset these veering paths.

Listen regularly to weather reports and forecasts to learn of prevailing winds. Strong offshore (outgoing) winds will improve surf hunting by lowering the water level and reducing size and force of breakers. On the other hand, incoming wind and waves tend to pile the waves up, forcing you to work closer to shore. Pay attention to winds and tides, especially during storms. You'll want to search at low tide the lower the better. After storms come ashore, head for the water!

Weather is a contributing factor to tide levels, which can be dramatically altered by storms and high winds. A big blow moving in from sea may raise normal tides by several feet. When this occurs, wave action can become so violent that it is impossible and dangerous to hunt in the surf-or even far up on the beach. But, the stage is set, and you should hit the water when calm returns.

Conversely, an outgoing storm can cause lower tides an a compression of wave heights. These conditions and the changes they cause is a continuing process that controls sand deposits in shallow water.

Storms often transfer treasure from deep-water vaults to shallower locations. Plan to search the surf as soon as it calms after a squall. If you are hardy enough and the waves aren't too high, try working during the storm itself. It may be revealing, Indian John told me of working a Florida beach and surf during a deluge. Suddenly, at water's edge, a gully began forming before his eyes. As it grew deeper, he suddenly caught the unmistakable glint of treasure. I don't know how much he took from that glory hole, but he smiles when he tells the story.

Always remember that extremes in weather, wind and tides can make unproductive beaches suddenly become productive. Storms play havoc with beach sands and the treasure they contain. Fast-running currents that drain a beach can wash deep gullies in the sand to bring you closer to the blanket of treasure below the overlying sand.

SAND FORMATIONS

These are nature's traps! And, they are another reason for working the surf immediately after a storm. The waterline continually reshapes itself to protect the beach. Sands shift normally to straighten the beachfront and present the least possible shoreline to the sea's continuous onslaught. During storms, beach levels decrease as sand and treasure washes out into the surf to form underwater bars which blunt the destructive force of oncoming waves. Following the storm, waves disrupt these sandbars in the surf to return this sand to the beach.

To understand how articles continually move around in the shallow surf, consider the action of waves upon sand. At the water's edge, particles of sand form the sand bank when a wave comes in, sudden immersion in water causes the grains of sand to "lighten" and become more or less suspended in the water. Such constant churning keeps particles afloat until the next wave comes in. the floating particles are then carried some distance by the force of the water.

In the same manner, coins, jewelry, seashells and debris are continually relocated, generally in the direction of prevailing wind and waves. As they move, waves and wind carry material until a spot is reached where force of the water lessens. Heavy objects fall out and become concentrated in "nature's traps." So, pay attention to tidal pools and long, water-filled depressions on the beach. Any areas holding water should be investigated since these low spots put you closer to the blanket of treasure. As the tide recedes, watch for streams draining back into the ocean. Follow these into the surf because they help you locate low areas where you can get your searchcoil closer to the treasure.

As experience accumulates, you will discover "mislocated" treasure in surf area away from people. How did this happen? Perhaps this is where people used to congregate; it might once have been a swimming beach. Then, for some reason, the old beach was abandoned along with its treasure. Another reason is natural erosion that redeposits objects. Even though such action is seldom permanent, always keep in mind the forces that cause it to happen-and, watch for them in action. These forces do not occur accidentally, and they can create treasure vaults for you to find and unload.

Pay attention the next time you get close to turbulent surf. When a wave breaks near the beach, notice that water appears brown because of suspended sand. Crashing waves transport this sand onto the beach. If the waves are breaking perpendicularly-at a ninety-degree angle to the beach front-most of this sand is washed right back out to sea by the receding water.

Waves rarely break perpendicularly; rather, they bring sand in at an angle that sets up a current. This angle of transport washes sand to either side of its origination point. Some of the displaced sand remains on the beach and some is washed out to a new location. The result of this action is sand movement in the general direction of the waves.

Understanding this phenomenon is important because the "same transport system" via storms and high waves causes a redistribution of treasure from the point where it was lost to its present location in the surf where it waits your metal detector. The ability of water to move heavier-than-sand material depends on its speed. Large waves and fast-moving currents can carry sand, coins and jewelry along a continuous path. When wave action slows down, movement subsides. When wave action picks up, movement resumes. Growing shores are "nourished" by material that has been eroded from a nearby stretch of beach. Heavy treasure takes the path of least resistance, moving along the lowest points of cuts and other eroded areas. As coins and jewelry are swept through the surf into new beach areas, they become fill along with the new sand. Being heavier, they tend to sink offshore in the surf while sand washes onto the beach. When a beach or shore are has become fully "nourished," the build-up stops, leaving treasure buried in the sand or shallow surf where it awaits the signal of your metal detector.

Since shorelines and beaches are continually being reshaped, you must be observant. One key to success is establishing permanent tide and sand markers. Such markers can be a piling or structure readily

visible at any time. Ideally, your water marker will be somewhat submerged during both high and low tides. Checking this marker lets you measure water depth at all times to learn if the water is rising or falling.

Your marker in the water is important because it gives you an instant report on water depth, which indicates how far out you may search safely. Remember, the farther out you can go, the more new area you will have to search. But, never take chances is deep water.

It's dangerous…and, you might not be able to recover your finds in deep water.

GRID SEARCHING

When searching a large area of the surf, you should clearly define your area of search and systematically scan every square foot. There are many grid methods to use, some simple, some elaborate. Perhaps you can drive stakes into the surf area or just guide yourself on piers, trash containers, trees and other permanent objects up on the beach.

When not following the tide out, some surf hunters prefer to walk a path parallel to the water's edge. They then turn around, move about two feet farther out in the water and walk a return path. Others prefer to start in deep water and scan back to the beach. They then turn around and walk a return path about two feet to the side of their first path. This second method has more merit since it permits treasure troughs to be spotted more quickly.

Here's how. These troughs, or "cut" areas that bring you closer to bedrock and the treasure blanket lying there, sometimes form parallel to the water line. When the tide goes out, the troughs fills with sand; still, they can sometimes be found. While scanning a path between the water's edge and your wading limit, each time a find is made, try to remember the location. After you have scanned some distance down the surf and made several finds, look back and study where you have worked. Observe the location of your finds to see if a pattern is developing. Most may have occurred in a narrow belt parallel to the waterline. If so, you've probably discovered the location of a buried trough where a storm or other wind and wave action have created a treasure vault. *Empty it*!

When selecting surf in which to work your grid pattern, seek one where you earlier observed a cut forming perpendicular to the waterline at low tide. High tides or waves pouring back into the ocean form these cuts, usually at low spots that have resulted from previous storms. Remember, cuts are important to you because they bring you closer to treasure; also, coins and jewelry washing off a beach are pushed into these cuts by streams of draining water.

Now that you will be searching in patterns rather than randomly, you will soon see the value of keeping precise logs of your treasure finds. Even if others are working in the same surf, it is likely that valuable patterns will emerge on the pages of you "hot spots." You may think that with others and yourself steadily working the surf of a particular beach, all its treasure would soon be recovered. Why keep track, you may ask. You'll learn, however, that active surfs are continually *replenished* by "new" lost treasure and that all surfs add "old" treasures that tempests have withdrawn from deeply hidden storerooms.

SCANNING TIPS

Do not race through the water with your searchcoil splashing in front of you. Slow down! Work methodically in a pre-planned pattern. Unless you are in a hurry and seek only shallow, recently lost treasure, reduce scan speed to about one foot per second. Let the searchcoil just skim the underwater sand and keep it level throughout the length of a sweep. Overlap each sweep by advancing your searchcoil about one-half its diameter. Always scan in a straight line. This improves your ability to maintain correct and uniform searchcoil height, helps eliminate the "upswing" at the end of each sweep and improves your ability to overlap in a uniform manner, thus minimizing skips. Practice this method; you'll soon come to love it-and, especially its results.

Don't ignore either very loud or very faint detector signals. Always determine the source. If a loud signal seems to come from a can or other larger object, remove it and scan the spot again. When you hear a very faint signal, scoop out some of the damp sand to get your searchcoil closer to the target and scan again. If the signal has disappeared, scan the muddy sand that you scooped out-you may have just a BB, but at least you'll know what caused the signal.

Remember. Your metal detector *will never lie to you*. When it gives a signal, something is there.

During your search near the water, when you begin detecting trash (pulltabs?) in a line parallel to the waterline, search for a nearby parallel trough. Remember that more than one trough may have been created, and that those farther out can contain heavier treasure items.

When pinpointing, always try to be precise. Good pinpointing saves time and lessens the possibility of damaging your finds when you dig.

I hope these examples of potentially productive areas offer ideas that will encourage you to expand your territory. Treasure hunters often travel thousand of miles in their quest for treasure. You can do likewise, especially if there is a pot of gold (or escudos) at the end of your journey. But, I must stress that considerable local treasure is all around you-wherever you are located. I am positive of this because I know that lost or hidden treasure exists *everywhere*. Find what's in your backyard first; then, hit the treasure trail!

THE BIG DIFFERENCE

It's *recovery* that separates the water hunter from the land hunter…the men from the boys…the surf hunter from the beach hunter…the sheep from the goats.

Yet, the principles of recovery are the same no matter where you discover treasure. You have to work out some means of removing your find from where it lies hidden. When your detector signals over sand lying four feet beneath ocean waves, recovery is considerably different-and more difficult-than in a park or playground.

Let's now consider the equipment that you'll need for these different and more difficult recoveries and the other types of equipment needed for surf hunting that you might find different from those used in traditional treasure hunting with a metal detector.

Equipment that you will need will, of course, depend upon whether you work in shallow or deep-water surf. We can define shallow surf as water depth that permits you to dig with your hands, a hand scoop or a tool-in other words, at arm's length. Deep-water surfing is hunting in depths of about five feet, or the maximum depth you can safely wade in the water without swimming or floating.

Your choice of retrieving tools will depend upon soil conditions and personal preferences. In sandy areas, a scoop is fast. If the soil is muddy or made of hardened clay, you will need some kind of digger. In deep water, a long-handled scoop is required to retrieve your finds.

When the water grows colder, hip or chest high waders and suitable underclothing will keep you warm and dry. When wearing waders, be alert or else you may bend too far. Suddenly, you'll find yourself wearing "convertible" gear: Your waders have been converted into a wet suit! Wearing a waist or chest belt over waders can reduce the amount of water that comes in. no matter what type of treasure pouch or pouches you use, they must close tightly. Water-hunting treasure pouches must have a secure flap covering. Some surfers use a sturdy open-weave bag or pouch with zipper or drawstring. Whatever equipment your ingenuity comes up with, keep it in good shape. Don't lose valuables through holes! It's a good idea to have several pockets that let you separate treasure and trash. But, whatever you do, never discard trash without carefully examining every piece. You may have inadvertently placed a good find in the trash pocket. Also, that item that looked so corroded and unrecognizable may turn out to be a valuable object. When in doubt about any find, take it home for closer examination, even an electrolytic for cleaning.

Some surfers use a flotation screen; others do not. If you use a converted land metal detector, you'll need a flotation device unless you mount the detector control housing on your body, or on the end of a very long searchcoil stem. The flotation device, of which there are several designs, is constructed with a one-half inch sturdy chicken wire screen. The screen opening should not allow a U.S dime to pass through diagonally. If you are searching for smaller objects, the screen opening should be smaller. If your flotation device is large or contains your detector's control housing, the screen portion should hinge t o permit raped dumping of accumulated trash. The float can have recesses for the detector, a water bottle, your lunch and, perhaps, an extra tool or other necessity. Select a tube from the various automobile, motorcycle or bicycle sizes available. Since you are really not supporting much weight, the tube does not have to be highway bus or truck size. You should position the screen so that its bottom surface is about one or two inches below the water line. This facilitates quick washing of debris, mud and sand. In fact, when you dump several scoops into a well-designed flotation device, surf action should quickly clean the material.

Some hunters have said they prefer to place several scoops of dug material into their screen before they examine its contents and retrieve their finds. This can be efficient if you use a zippered bag which takes extra time to open and close each time you store a find. If the bottom is heavy silt and mud, it also might be quicker to dissolve and inspect a large amount of soil rather than stir through your smaller retrieving scoop each time you make a dig.

An inner tube can be punctured accidentally. This is a problem only if your detector housing is mounted on the float. Even then, I think you would hear the air escaping and you could rescue the detector before it got a bath. Placing your detector on a float is not recommended, however, for several other reasons. It has no protection from rain, the occasional wave or water splashed by swimmers.

When I work loose sandy bottom sites, I do not use a floating screen. As I begin bringing up the scoop filled with sand and other bottom objects, I immediately begin shaking the scoop. By the time I have it up to the water's surface, most, if not all, of the sand has already fallen through the holes.

HANG ON TO IT!

You must tether a float to yourself or you'll lose it. According to Murphy's infallible Law, the first time you turn your back on an untethered float, it will head straight out to sea. You can probably tell that I'm not much of a fan of floats. I consider having to manipulate a detector and a long-handled scoop problem enough. Plus, it is not practical to use a float in surf areas when the waves are high. It will be constantly banging into you. And, it will never be where you want it when you need it.

In using a large open-basket screen, you invite thievery. Some individuals are naturally tempted when they see valuables lying in an open screen. Carl Rattigan and I were once working Guadeloupe surf when several boys swam up to watch. Carl brought up a scoop that contained what he describes as "the most beautiful and valuable gold medallion of the week! A boy reached into scoop, grabbed the medallion and darted off with it through the waves.

Some surf hunters swear by floats that are constructed entirely of non-metallic materials. With such floats the under can scan an entire float with a detector to make certain that no mud balls and other encrustrations contain treasure. While that idea certainly has some merit, I do not consider it the most efficient method. I recommend that you investigate by hand and then scan every strange item you discover. And, as I have said, take every "unknown" object home for closer scrutiny.

RETRIEVING TOOLS

Your scoop and all retrieving tools must be ruggedly constructed. You will be putting a lot of force on your scoop each time you make a dig. A plastic scoop may not stand up under the strain. The upper end of the handle should have a screw, lanyard, paint strip or other marker to let you know at a glance on which side the scoop opening is located. A "looped" handle (one that has rods extending from both the top and bottom of the scoop to form a handle) is the configuration I prefer. Further, it should be curved backward so that you don't have to lean too far forward to tilt the scoop into the required vertical position for proper digging. When you push the handle forward to position the scoop vertically, your hand should be about midway or lower down the handle. Then, you begin your backward pull while sliding your hand upward. You'll also rotate the handle to free the scoop from the muck. As you bring the handle backwards, you'll slide your hand over to the front rod of the handle and grasp it as close to the scoop as possible. You then pull the scoop free of the bottom. This low position of your hand on the forward rod of the handle keeps the open end of the scoop upright. Shake the scoop as you bring it up to remove sand and small debris.

When working in shallow water (arm's length-depth or less) use a scoop or digger, depending on bottom material and density. When the material is light you can fan it away by or speed up the action with a ping pong paddle. Be observant when you are fanning since lighter junk items such as pulltabs can float away with the sand. No loss, certainly, but you may just keep detecting them over and over again. You'll know that a pulltab can't be that 'treasure' you just detected. Keep fanning and watch for a ring or coin to appear.

In deep water, use one of the following scoop-retrieving methods. First, you must pinpoint the detected object. Then, bring the scoop forward and lightly touch the back edge of the searchcoil. Move the searchcoil out of the way and tilt the scoop forward and press on the butt end of the scoop with your foot. Now, I don't particularly like this method because I don't like the detector's loud squeeeeel when the metal scoop comes near it searchcoil.

After detector pinpointing, some hunters place their foot lightly on top of the searchcoil, then move the coil away. They can place the scoop adjacent to their shoe to achieve correct scoop positioning.

Still another method is to place your left foot beside the searchcoil and move searchcoil outward to the right. Lower the scoop until it touches the heel of your shoe in the correct position for retrieval.

Regardless of the method you use, practice until you have achieved perfection, even digging several scoop depths, if necessary. Don't worry if you have to try several times at first to retrieve your object. It comes easier with practice. If you occasionally keep "losing" an item, the object may have been small enough to slip through your scoop holes. I had this problem once when I was digging everything (All Metal mode) at a beach site in Antigua. The objects that I was 'losing" turned out to be ladies' hairpins. Placing a magnet near the bottom of the scoop to attract these iron objects will overcome this problem.

If you get a signal, but fail to scoop up a target on the first try, pinpoint it again with your detector. If the target moved, it could be a small object that sifted through the scoop. If you cannot locate it with your detector, it may be a deep coin or ring that was turned edgewise when the scoop contacted it. Try digging deeper to see if you can locate those mysteriously "lost" objects.

Here's a phenomenon to observe while surf hunting: Remember the science classes of your schooldays when you learned about diffraction of the "bending" of light. This occurs when light passes through a water/air boundary? An underwater object such as your searchcoil will thus appear to be in a different place from where it actually sits. Until you get used to it, this sighting error may cause you to misjudge the location of your searchcoil in relation to your scoop.

SCANNING TIPS

When you're working a popular area and do not find *any* pulltabs, someone may have just worked the area thoroughly. Since some hunters dig everything, or at least use minimum discrimination, they will remove everything, including pulltabs.

When working in surfs with rough wave action, always work sideways to the oncoming breakers. You need to present as little of yourself to the body flattening waves as possible. Don't forget, either, that some waves are considerably larger than others.

When scanning, keep the searchcoil near the bottom and lightly skim over the sand. If you hold the searchcoil very far above the bottom, you will lose detection depth. If you drag the searchcoil through the sand, you will be expending energy you need for a full day's scanning.

Dig all signals, regardless of magnitude! Some suggest *not* digging large signals. They reason that large detector signals merely indicate surface trash. But, treasure is sometimes found directly beneath surface trash. I know of a surf hunter who found a gold ring after he moved a "loud" tin can.

On hot sunny days wear a wide-brimmed cotton hat. Occasionally dunk it in the water and pull it back down over your head. You'll be surprised how cool you'll remain even during temperatures well over 100 degrees. I've worked all day for days on end in very hot climates with absolutely no problems. I wear long-sleeved shirts with the collar turned up. I place a handkerchief under my hat and let the loose end shade my neck. In a surplus store I found a sun "shield" to protect my neck from the sun.

It's best not to show your good finds to strangers. Let them think you're digging up junk and pulltabs, and they will leave you alone. I like tots, and you may also, but if you don't want to be petered by them, don't give them your pennies or other coins you don't want. Whenever I forget and begin to give coins away to children, I'm soon covered up with others wanting their share. Nothing wrong with sharing or with charity in general, certainly, but these children will distract you when you need to devote all your attention to finding treasure.

TRASH AND DEBRIS

This matter of trash on a each is one that daily becomes more urgent for all of us beachcombers. I refer especially to plastic trash that is more than just unsightly. Fish and sea birds become entangled in six-pack rings, sea turtles mistake plastic bags for jellyfish and swallow them; birds peck at plastic pellets and feed them to their young. Similar harm results from countless other plastic items that are carelessly discarded on our nation's beaches every day. What can we treasure hunters do about it?

Most metal detectorist carry out the metal trash they dig because all treasure hunters benefit from its removal. But, what about non-metallic trash we find in the surf? Certainly none of us carries around a container larger enough to hold all the plastic trash and broken glass we find in only a few hours. Let's join together to help, however, and dispose properly of as much trash as we can. We perform a service not only for all beachcombers and sun worshippers but for sea creatures and bird life as well. How about it… can't we join together and help on another?

Let me also make the same request of each of you surf hunters that I make of everyone who purchases a Garrett detector; always try to leave each location you search in better condition than you found it.

One final bit of advice: remember, you plan to search the surf to find the lost treasure of others, not your own valuables. Leave all of your jewelry at home so some other surf hunter won't be scooping it up tomorrow.

Good luck in your surf hunting. I sincerely hope that you'll enjoy hunting for treasure in the surf with a metal detector as much as I have and that someday I can…

See you in the surf!