

# Field Testing **the 1280-X**

## **AQUANAUT**

### Shallow Water Testing by Carl Schmeizle

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Over the last nine years, I have been actively engaged in the hobby of metal detecting for lost valuables in the many swimming beaches along the Chesapeake Bay here in Maryland. I am also a dealer for Fisher, Whites, Compass and Garrett. Over the past ten years I have had the opportunity to use virtually all the underwater metal detectors available, plus numerous land type detectors that I have modified for underwater use. Now that you know a little about my background, let's talk about the 1280-X.

In the fall of 1982, I was called upon by Mr. Jim Lewellen, President and General Manager of Fisher Research Laboratory, to test a new underwater detector. I was pleasantly surprised and eager to help such a reputable company. During the following two years Fisher sent me three prototypes which I personally subjected to the adverse conditions found in the Chesapeake Bay area during the summer and winter months.

Now, after almost three years of extensive development and testing, the all new 1280-X Aquanaut has been added to the well known Fisher inventory of detectors. Patterned after the already successful 1200-X series, the Aquanaut

was designed to be used by shallow water beach hunters or deep sea scuba divers. This comfortable handling, sleek new unit has features that water hunting treasure hunters will be talking about for years to come.

The 1280-X features automatic ground rejection, slow motion discrimination, and silent, no-threshold operation. Another advanced Fisher circuit allows silent operation, with no loss of sensitivity on the deep objects. These features, incorporated into three knobs on the control housing, make this superb unit simple to use thus resulting in more time detecting and less time spent adjusting knobs and unnecessary digging.

A quartz crystal controlled oscillator operating in the VF (Voice Frequency) range of 2.4 KHz, provides rock solid stability and exceptional target depth.

The control housing is made of lightweight, rugged injection molded A.B.S. thermoplastic, and the complete unit weighs in at slightly over five pounds.

All wired connections are factory sealed to eliminate the possibility of leakage. The 1280-X is waterproof to a depth of 250 feet and comes with a telescopic adjustable fiberglass search

rod and adjustable arm rest.

The concentric co-planar eight-inch coil is epoxy-filled with 100% E.S.I. shielding. This coil size requires less digging than some of the larger sized coils but still maintains very good depth penetration.

Tough waterproof headphones are standard equipment, equipped with a coil cord approximately seven feet long when stretched. This length allows the owner to lay the detector aside while digging in very shallow water without removing the headset.

The 1280-X is slightly buoyant and may be worn as a hipmount model simply by sliding the control box off the search rod grip and attaching to the belt clip provided with the detector.

Another important feature of the 1280-X is the battery compartment, which is a separately sealed compartment when the battery door is closed. When changing batteries, if water should enter this compartment, just wipe dry thoroughly before installing fresh batteries.

As mentioned previously, the 1280-X is a snap to use. The three numbered controls' consist of power on-off/volume control, discrimination, and bat-



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tery check/sensitivity knobs.

To prepare the unit for hunting, simply turn the power switch on and select the desired level of volume by passing the coil over a metal object. Next, set the discrimination and sensitivity levels and go. Simple as ABC!

Due to extreme concentrations of minerals, salt, or both in some areas, it may be necessary to lower the sensitivity slightly to reduce the number of false signals received.

Power is supplied by eight 1 1/2 volt inexpensive AA carbon-zinc batteries which will give 30-50 hours of operating time. At this writing, the company is considering an optional rechargeable battery kit.

To test the batteries, simply turn the sensitivity knob counter-clockwise past zero. The battery check light will glow red, and a constant sound from the headset will indicate the batteries have power. When the light no longer glows, it's time to change batteries. The battery check light (LED) doubles as a target indicator so that whenever you hear a target response in the headset you'll see a red light.

The 1280-X is a "motion" detector, meaning that the searchcoil must be moving to detect a target. However, the motion required is slight, and I was able to master it and pinpoint effectively with just a little practice.

Depth penetration of this detector is truly outstanding even with relatively high levels of discrimination. Most small pieces of iron, foil, pulltabs, and screwcaps are eliminated or give a short, clipped sound. Good nonferrous targets (coins, rings, brass buckles, lead, etc.) are identifiable by a mellow, symmetrical sound that can't be mistaken. When the discrimination control is turned to minimum, all metal will be accepted and maximum depth is achieved.

Areas for testing were selected to provide varying degrees of water salinity and mineralization content which

require that most underwater detectors be manually rebalanced or retuned often during searching. The new 1280-X was supposed to eliminate those problems with its ability to automatically ignore ground minerals, tune to the salt content, and eliminate junk targets all the same time. The first prototype had some problems and I told Fisher, but the next two units did the job.

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One of the many tests took place at an old, well-known beach in the upper reaches of the Chesapeake Bay. As I stepped into the water, my first impulse was to take the unit out into the deeper water where many of the other hunters go; but since one of my main purposes was to test the discriminating capabilities of this new detector. I moved into the shallow water area approximately 25 feet from shore. Here is where the normal tides and wave action cause a large amount of junk items to accumulate. These areas are normally shunned by other water hunters using non-discriminating type detectors.

Using just enough discrimination to eliminate all iron, my prototype breezed through a large percentage of the junk items. During the days' hunt I dug six silver quarters, one buffalo nickel, two small silver friendship rings, two gold rings, and numerous clad coins and copper pennies not to mention a few of the inevitable, ever present pulltabs. Considering the fact that I was experimenting with higher levels of discrimination, it wasn't a bad day.

I did find that higher levels of discrimination would eliminate some nickels and small gold rings along with the junk. I also found that changing underwater ground conditions would cause

the discrimination point to change for some deep objects. On some beach bottoms I detected very deep coins, silver rings, and other non-ferrous items that sounded good no matter how high I turned up the discrimination. I also learned to recognize deep objects by the small "size" of the signal and the lower sound heard. Under most conditions, however, I found that iron was rejected at 3, bottlecaps 4, pulltabs 6, and screwcaps 7.

In my personal opinion, the all new 1280-X is a most welcome addition to the treasure hunter's selection of fine equipment. And as an added bonus feature, it's a good land machine. Considering the simplicity of operation, sturdy construction, and versatility of the 1280-X, it is well worth the factory suggested price.

FRL#870381-D