CHAPTEILE

Modern Caching Technology

S ince World War II, remarkable new advances in caching technology have drastically altered almost every aspect of strategic weapons storage. Caching equivalents to atomic warfare make it possible to hide weapons under virtually any environmental circumstance. It is now possible to store your guns in a sewer, a lake, a running stream, a vat of acid, a freezer, a chimney, or a host of similar places that the bad guys are either unlikely or unwilling to think about. This is the good news.

The bad news is that the other side also has some fantastic new technology to work with. Some of the space-age gizmos they use are so good that the cacher must use all of his wit and intellect to keep the cache intact. It's the age-old rule of measure and countermeasure, of technology ratcheting each side up in a kind of lock step. Yet the new technology we have presents opportunities unheard of even a few years ago. It would, for instance, be advisable under some circumstances to place your cache tube inside a furnace clo-

sure next to a firebox after wrapping it in a space blanket. There are many other locations around the home or farm and at the workplace where the bad guys either will not look or will be reluctant to search thoroughly. A farm silo or the bottom of a large granary are excellent choices. It would take weeks and tens of thousands of dollars for searchers to empty these bins on the outside chance that they might contain a cache. In the case of a silo, it might be dangerous for the authorities to search it because of dangerous gases produced inside.

However, septic tanks and sewers, which appear at first to offer some of the most interesting possibilities, do not in reality have much to recommend them. Recently, the DEA, FBI, and federal marshals have pumped virtually every septic tank they encountered at places in the country where they were searching for drugs or munitions. It has been just about their first order of business when searching for contraband. Perhaps it is a logical extension of the Nazi experience of uncovering caches in refuse containers, but at this point it seems like good advice not to cache in septic tanks or garbage receptacles. Bomb squads look first into garbage cans and wastebaskets, leaving one to conclude these sorts of locations are not particularly secure.

For the purposes of this analysis, one must assume that there is a great difference between large weapons caches and hiding a weapon or two in your apartment. Subsequent chapters will cover hiding personal weapons. Many caching and hiding techniques are similar, but there is a difference—in psychology if not mechanics. To be successful, the cacher must understand this and be able to distinguish between the two.

Modern caching techniques are not particularly difficult when viewed in their component parts. The techniques can be exacting but are not difficult to master. Sloppy execution will lead to poor results, while the

opposite is certainly true—careful execution will lead to excellent results.

My first experience with a weapons cache was much the same as that of the sheriff from Tippecanoe County. It was a long time ago, but as I remember, we took a GI-surplus wooden box that once housed three 3.5-inch bazooka rockets, disassembled our weapons, stacked the various parts neatly in the box, and filled it up with molten grease. We purchased the grease from a farm supply store in five-gallon pails. I believe it took two full pails to cover everything completely.



Since many military-type weapons have limited amounts of wood to deteriorate, they tend to store well. The laser sight must be removed and placed in a smaller cache tube.

We removed the wooden stocks from the weapons and stored them in another location. Wood will deteriorate in grease much faster than steel, we reasoned, but this was not a particularly wise decision. Anyone who noticed the stocks would have suspected a nefarious weapon or two might be lurking somewhere near as well. Modern military weapons are seldom constructed

using wooden stocks, but not all of us have the privilege of caching the most modern weapons. Some citizens, for instance, may feel harassed to the point that they simply wish to cache a superaccurate bolt action rifle. Today I would leave the wood with the metal, assuming that both will last a minimum of twenty years in an airtight container.

Another problem we had with storing the parts separately was that some of the pieces were misplaced. After a time, we didn't know for sure if they were in one cache or another. On one occasion we returned to a cache after a great number of years only to discover that a key part was irretrievably lost. From then on, only complete weapons packages went into a single cache.

Even in a military context, disassembling a weapon to save space may not be a particularly good idea. Unless the disassembly is very basic, small parts may be misplaced or hidden in the grease coating. Removing the stock from a Thompson or splitting a Schmeisser in half, for instance, might be okay, but removing a scope from a rifle to be cached is often of questionable value (although sometimes it must be done).

How does one reassemble and rezero a previously cached rifle with its scope? Test-firing semiautomatic weapons attracts quite a lot of attention. Rezeroing a scoped rifle over larger distances may be out of the question for some city dwellers. (Maybe that's why the hero in many spy stories is never successfully shot by the villain sniper.) In occupied France, the situation became so tough that replacements for fallen Resistance members could not be trained with firearms. They simply had no place to practice or to sight-in weapons. This situation may seem unlikely in the United States, but I'll bet few owners will be taking their semiautos to the range to practice in California.

Modern caching equipment roughly breaks down into the following essential categories.

Plastic Container

Since most caches are placed in the ground in a vertical position, it is best to use standard round plastic plumbing pipe. Purchasing sections of pipe from the local plumber will not be a problem since they sell dozens of similar items to hundreds of people each day. When the Bureau of Alcohol, Tobacco and Firearms (BATF) people inquire, the clerk will have no recollection of what you purchased. If a question does come up, tell the people at the plumbing shop that you intend to construct a map tube or a fishing pole holder.

Cache tubes must always be placed in the ground vertically. Horizontal tubes expose too much surface area to sensitive metal detectors. Always bury the tube so the top is at least one foot below the surface.

Many army/navy surplus stores carry polyurethane plastic barrels about the size of fifty-five-gallon steel drums that are intended for caching. They are thick and tough with an adequate screw-type lid through which most weapons could be passed. Though these barrels are fine for caching food and medicine, they are not recommended for weapons. Their overall width, plus the huge mass of steel they might contain, make them extremely easy targets for modern metal detectors.

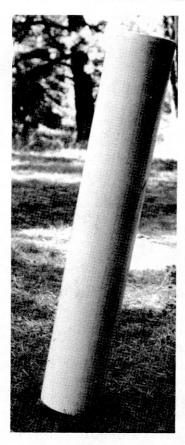
Use the four-, six-, or eight-inch diameter SDR (Sanitary, Drain, Refuse) pipe found at virtually any full-service plumbing shop. There is a lightweight and a heavy grade of four-inch pipe. Use only the heavy-weight material if a four-inch cache tube is adequate. Six- and eight-inch tubing come only in heavy and extra-heavy grades. Inexperienced cachers will try to get by on smaller tubes initially because they are easier to find and much cheaper, but almost everyone eventually uses eight-inch pipe for their cache tubes. There is a high-pressure, eight-inch plastic pipe called a "blue boot," but it far exceeds the needs—and perhaps the



Installing the end cap on a four-inch cache tube. Most cachers find that four-inch tubes are too small for anything except ammunition and magazines.



A four-inch cache tube will hold a tremendous quantity of ammunition.



A new sixty-inch section of eightinch cache tube, ready to be filled with weapons.

pocketbook—of most cachers. The wall thickness on blue boot pipe is almost three-quarters of an inch.

A section of eight-inch plastic pipe will hold quite a load of weapons. Count on placing at least two full-sized rifles, four assault rifles, four or five pistols, and dozens of magazines in a single eight-inch tube. (Enough, my friends claim, to start a revolution in Central America.)

It is best to have the tube cut at a length of sixty inches. This way, even the longest semiautomatic weapons will fit inside the tube, and the parts will have



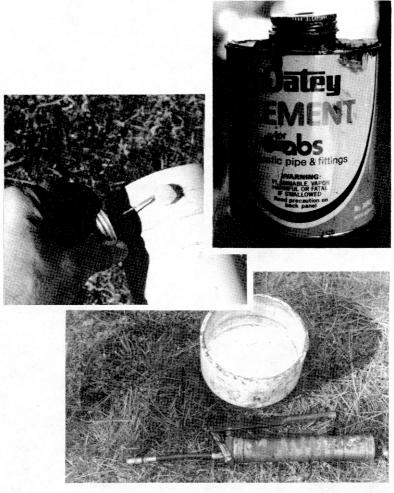
Common eightinch slip-type end cap used with a grease closure on a cache tube.

an opportunity to settle into the lower end, farther from the probing eye of a metal detector.

Heavy-duty, four-inch SDR pipe retails for about \$.95 per foot, six-inch pipe for about \$1.55, and eight-inch, the most common cache tube size, for about \$4.15. Some small stores must special-order eight-inch pipe and will want you to purchase an entire ten-foot section.

Various threaded plugs can be purchased for the tubes, but usually the best and cheapest are simple slip-on end caps. Threaded fittings are theoretically easier to get into and more secure, but this is not always true out in the field. Threaded caps clog with dirt and are often as difficult as slip caps to remove. They are no more impervious to water under most circumstances than a simple, inexpensive grease-sealed end cap.

Plain end caps for four-inch pipe cost about \$1.50, six-inch caps \$6.90, and eight-inch slip caps \$21. Female adapters into which a plug could be threaded

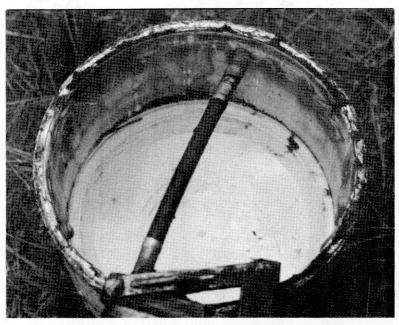


Top Left: Permanently glue the lower cap on the cache tube using ABS cement purchased from a plumbing supply house. Top Right: ABS cement used to attach caps to cache tubes. Bottom: Eight-inch slip-type cap for cache tube with grease gun used to attach cap.

cost roughly \$5.25 for a four-inch pipe, \$16.20 for a sixinch pipe, and are not even made for eight-inch pipe. Plugs for the two available sizes are \$2 and \$5 each.



A hand grease gun is used to apply common lube grease to the end of an eight-inch cache tube prior to placement of the end cap.

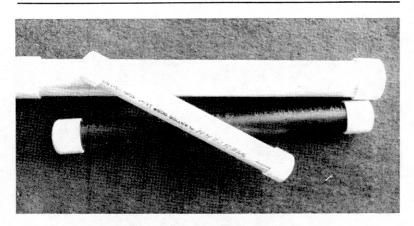


Grease sealant being applied to the inside of the end cap.



Placing slip cap onto cache tube.

Whatever closure system you choose, you will cement one cap on the lower end of your cache tube permanently. There is no reason to install expensive fittings on the end of a pipe that will be in the ground. Use heavy pump grease to coat the end of the pipe and the cap on the top access end. After you've glued the bottom cap on, you can check the seal to determine whether the tube will hold pressure by pushing a cap onto the top end. If there is a leak, the cap will pop off the top of the tube right away. If it is a good seal, air pressure will build up in the tube, preventing the cap from settling on the end of the pipe initially, but once the air pressure equalizes, you'll be able to push it on. (If the cap absolutely cannot be pushed on the tube because of the air pressure, drill a small hole in the cap



Smaller 1 1/4-inch, 1 1/2-inch, and 2-inch cache tubes with sliptype end caps. These are useful for storing scopes, ammo, laser sights, and other small parts within the full-size tube.

to allow the trapped air to escape. Pressurizing the tube provides an additional barrier against moisture. Do not drill a hole to relieve this pressure unless it is absolutely necessary.) At times it is very difficult to pry these pressurized caps off the tubes once they equalize and "set up." I use a small hammer to tap them off or a piece of two-by-four as a pry. Some cachers use standard PVC glue to place a small handle on the cap so it can be pulled and rotated to open.

If you feel you must remove the scope from a rifle to be cached, it is always best to place it in its own internal plastic pipe container. This isn't the best situation, but it is way ahead of anything else if you must cache a scoped rifle.

For all practical purposes, these sealed plastic tubes are impervious to the elements. Whatever is stored in them today would certainly emerge in fine shape if dug up in the year 2001. If you are positive the cache will remain in place ten years or more, it is advisable to seal both ends. In this case, if you wanted to use the enclosed weapons in the year 2001, you would have to saw the pipe open with a carpenter's saw.

Rust-Preventative Coating

Treating weapons that are stored within an airtight cache tube is a matter of some debate among the caching fraternity. Most cachers agree that it is best to coat them with either regular grease or special oil made to prevent rust and other deterioration. Some simply cache their weapons as they came off the rack.

Conoco makes a product called "Cotton-Pickers Spindle Grease," a special rust preventative that protects metal parts as well as or better than anything else around. The product is a thin grease, almost liquid at room temperature. It sells for about twenty-five dollars per five-gallon pail. In most sections of the country it would be necessary to special order it from a local petroleum products distributor.

Metal parts on weapons can be coated with this material, and while it does not harm wood in the short or intermediate run, it may deteriorate it after very prolonged storage. The grease is thin enough that it may all run off into the bottom of the tube if the ground warms a bit. Apparently, enough would remain to control rust for at least ten to fifteen years.

Cachers can also use the less exotic technique of applying a thin coating of regular lube grease to their weapons. The coating can be as thick or thin as one feels is appropriate. Some surplus shops still have the odd bucket of inexpensive Cosmoline around. This material, if one can find it, will do the job very nicely. Expect to pay about seventy-five cents to a dollar per pound for grease and about thirty-five cents a pound for surplus Cosmoline.

Invariably, the question arises—why not pour the tube solid with grease? It can be done, but it is a very expensive procedure. While it is also very effective, it probably is not as effective as blister packing (covered in another chapter). Also, solid-packed cache tubes are

so heavy that it is difficult to carry them to their burying place, and it is impossible to remove or inspect the weapons in the tube once cached. Still, caches under these circumstances are extremely stable. There is no way of knowing, but I suspect the contents would remain in good shape for at least a thousand years. If the cap were sealed, the tube could be placed on the ocean floor and still be expected to last a long, long time.

As an added precaution, you can cover the weapons with grease or special rust-preventative oil and then wrap them in Valpon rust-preventative paper. (Undoubtedly, you can purchase this paper, but I do not know where. My best, most reliable source is a friend who works in an automobile parts store and saves sheets of it for me.) Wrap this paper tightly around the weapon and/or the parts packages. The grease on the weapons will tend to hold the paper.

Silica Gel

As a last measure to control any errant moisture in the tubes, you might want to place at least two ounces of silica gel in a sixty-inch tube that's eight inches in diameter (less for smaller tubes). Silica gel is available from chemical supply warehouses for about five dollars a pound, or you can ask your druggist to save the surplus packets and caps from the bottles of pills he unpacks. Collect the surplus once a month and you will be surprised at how much you accumulate at no cost. Be sure to use silica gel as a desiccant as opposed to the other common chemical used for this purpose, calcium chloride, which is a strong salt that corrodes metal quickly under the right circumstances. Place the silica gel in a cardboard container in which you have punched numerous small holes. Throw the cardboard container into the tube right before sealing it up.

If the cache is poured solid with grease or the

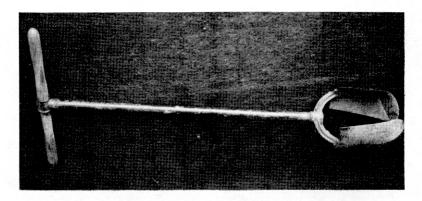
weapons are plastic sleeved, there is, of course, no reason to use a desiccant. Most experienced cachers report that use of silica gel is a nice gesture but not really important in terms of safe storage. If the weapons are only lightly greased, silica gel might be useful, but usually it seems to contribute little.

The most important step is to seal the tube thoroughly after it is in place and the parts are inserted. Use generous amounts of grease around the cap mouth, and be certain the air seal is maintained unless you elect to seal the tube permanently. Where the cache tube is located dictates how completely it must be sealed. Tubes placed in swamps, stream beds, lakes, storm sewers, or acid baths must be completely sealed. In these cases, you probably should figure on gluing the cap in place. (In spite of the expense and difficulty, marshes. streams, and lakes are excellent cache locations because searchers have a tough time using their sophisticated electronic-detection devices. Under these circumstances, they may assume an errant reading because to do otherwise would create a huge amount of work in disagreeably cold and wet conditions.)

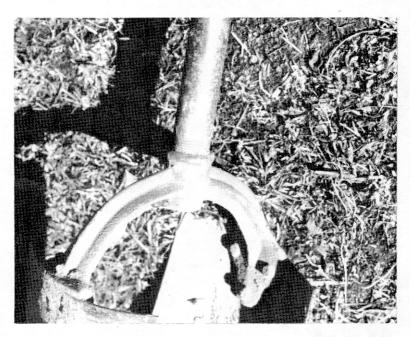
Soil Auger

Correctly burying a cache tube is something of an art; it can also be tedious and expensive. During the early '80s, I lived for a time in a very posh inner-city condominium. I felt it was important that I set up a cache, but obviously I could not do so with any safety within the building. After contemplating the situation for several months, I decided to bury it in one of the many shrubbery beds surrounding the building.

Burying a cache tube necessitates the use of a soil auger. (It can be done with a shovel, but not very well.) Soil augers, used by farmers to set fence posts, are sold in six- through twelve-inch sizes at nursery and farm



Common soil augers of the type used by farmers to set fence posts are available in sizes ranging from six to twelve inches. You should use a twelve-inch auger to place most cache tubes. A twelve-inch auger will dislodge an incredible pile of loose material from its hole, so plan ahead for disposal.



A three-quarter-inch common pipe connects the digging head of a soil auger with its turning handle.

supply stores for about forty dollars each. Regular caliper-type post hole digging tools are generally inadequate for the job of setting a cache tube because they will not dig down deep enough.

Soil augers are connected to the turning handle on top by a piece of three-quarter-inch pipe. The device will dig down about four feet. Augering the soil out of the hole is not difficult under most circumstances. At four feet, you must splice in an additional three-foot section of three-quarter-inch pipe using a common pipe union. Thus equipped, you can go down another two feet or more, deep enough to place a five-foot tube one foot underground.

At the condo, it was a fine, bright winter day in the desert. I put on an old pair of bib overalls and went out



Dig down into the ground five to seven feet, depending on the length of the cache tube. Placing soil on the tarp (right) helps keep the visual impact of installing the tube to a minimum.



After digging down four feet with the soil auger, splice in a threefoot section of pipe so that the hole can be bored down deep enough to hold the cache.

to the hedge bed early one morning when I knew the manager was out of town and started digging like it was the most natural thing in the world. Nobody recognized me, and I was able to dig a twelve-inch hole down to the required depth. (At times, in gravelly soil, this is not as easy as it sounds.) A twelve-inch hole produces a huge amount of loose material, all of which I placed in burlap bags and loaded in my car. I told one curious resident that I was taking soil samples, and that was my only inquiry.

After the hole was completed, I slid the tube into the space, covered the hole with dirt, and rescattered the wood chips from under the shrubbery back over the new excavation. (Tubes placed in the ground using this method are pretty much permanent. Soil settles back in around them, making the tube virtually impossible to pull. It helps to file a bevel on the lower cap so that the tube slides easier, but even this does not provide much assistance. Tubes placed in wet, marshy conditions can be pulled with a bit more ease, but even these require quite a bit of work to retrieve intact.)

Later, during the crisp dark of evening, I crept out of the condo with my cache items. The shrubbery hid me, or I could have been in a lot of trouble. Quickly, I uncovered the tube with my hands and slid the cache items down safely below. They resided there safe and sound until 1985 when I moved back to the country. It is helpful to place a disk attached to a dowel rod or rope in the bottom of the tube so that you can retrieve small items more easily (assuming you will move items in and out of the cache). Otherwise, you may have to fish out the small parts that fell to the bottom with a magnet.

As this story demonstrates, people living in cities will have a great many more problems successfully



Vertically installed cache tubes are very difficult to relocate. It took great effort to dig out this one, which was in the ground for eight years.

locating a cache than those in the country. In this regard, modern-day Americans are no different than members of the French Resistance or the Vietcong. If you will but look at it from the perspective of the authorities, you will realize the range of options in the country are far greater than in the city. Sophisticated searchers at my condo would have realized that the flower beds were the only place I could have cached and may have found them with sophisticated metal detectors. However, it was the only option I had in those circumstances.

My favorite caching spot in the country is right in the middle of a well-traveled gravel road. Pick a spot twenty feet from a large, distinctive tree and bore down with the auger. In spring, the digging is very easy after the initial three or four inches of gravel are turned aside. The county government did me a favor at one cache site when they blacktopped the road, permanently sealing in my cache tube. That cache will probably be there when I turn ninety. Certainly no one will find it, and my guess is that the contents will be in excellent shape.

If possible, bury chunks of steel in the vicinity of your cache—pieces of scrap, large bolts and nuts, whatever will confuse metal detectors. Place them in clustered locations away from the cache to create the illusion that the cache is somewhere near. GIs in Vietnam reported that they found metal with their mine detectors in every cemetery. They also reported that large numbers of weapons were almost always hidden in these same cemeteries. Yet, perhaps because of social problems and plain old laziness, they often did not dig in the cemeteries where they got good readings. Unless the authorities are powerfully motivated by other sources of information, such as informants, witnesses, observed traffic to the cache area, and so forth, they will probably not work their way

through a large number of false readings.

If the cache tube is stored under an incinerator, outdoor barbecue, or any other place where heat may be a problem, place a piece of tinfoil or heavy reflective paper over the top of the tube. In some cases, it may be appropriate to wrap the entire tube in reflective paper (from a lumber yard) or in an old space blanket.

In summary, build a good cache tube out of SDR pipe and suitable caps, coat the weapons with rust preventative grease, wrap them in rust preventative paper, place them in the tube, and drop in a packet of silica gel if necessary. Seal the tube well and stand it vertically in a deep hole.

Be aware that clever cache locations weigh heavily in the equation and that military-type weapons store far better than commercial ones (especially if the commercial types have extensive intricate woodwork and glass sights). Scopes, if you must remove them, should be sealed in their own separate container but placed in the tube with their intended rifles. Wood, leather, and canvas keep poorly in caches over the long haul.

Start developing a cache plan early so that the best location—whether it is a swamp, storm sewer, flower bed, road, or incinerator—can be chosen. Keep in mind that as a result of the modern materials available to cachers at plumbing supply shops, virtually any location can be utilized.