

Tracers have been around since about the first or middle of World War I. They have many varied uses for almost any situation involving firearms in paramilitary applications.

They were first used as a night fire directional device as it was difficult to determine where spent ammunition was ending downrange. With tracers the firer could shoot one round of tracer ammunition and hold his weapon in the same relative direction and be fairly certain where his regular ammunition would impact.

This also proved useful to the user who had a bent barrel as he could simply watch where his ammunition was going and make proper windage/elevation adjustments.

On field artillery applications a special rifle usually accompanied the weapon and normal bore ammunition was used to determine where the artillery (or rocket) ammunition would land. Soon the artillery crews learned they could get better results from firing the tracers instead of regular ammo.

In heavy placement weapons where ammunition was a critical factor to perimeter and overall squad protection the gunners could not afford to waste ammunition as it could not be carried in heavy quantities. In other words they had to use tracers to be certain of their target. They were laced in the belts and BAR clips in a staggered sequence of usually 1 tracer to every 8 rounds.

Aircraft gunners and heavy mounted weapons had an even harder time knowing where their ammunition was going as would fire and their target or they would be far away by the time the ammunition would impact. With tracers they at least had a good idea of which direction the ammunition was headed. These too were placed in the belts in a staggered sequence.

When in the hands of an experienced point man he will load his magazine full of tracers and instruct his comrades to "fire on his tracers". By doing this they would not even have to see the enemy because there were little brilliant lights showing the way.

When used in magazines the user can put them in in a staggered sequence so he can count the tracers used to know the remaining amount in the magazine. Another good habit is to place a tracer at the last round position to signify an empty magazine. There are many numerous ways to use these as simply a signal to the user or others.

These are by far less expensive than other means of flares and they are not only applicable as a flare but they will also work the action of automatics and can be used in the standard magazine.

These can also be used to start fires by firing them into a solid combustible with loose combustibles around it. But the most effective means is to prearrange gaseous or liquid substances for the tracer to pass through. Gasoline tanks are a good example if the tracer is fired through the upper gaseous portion.

NOTE OF CAUTION

We do not recommend the use of tracers for the above situation. Such use of them can and will only result in the destruction of life, limb, and property. We cannot and will not recommend any such use of tracers. The preceding use statement was presented as an "entertainment only" feature. The proper and guided use of tracers is for marking and night fire direction location.

PLEASE BE CAREFUL WHEN USING THESE OR ANY OTHER TRACERS

Tool required for construction of tracers ammunition is as follows:

A small drill (or preferably a drill press), a 1/16 or comparative (explained later) drill bit, vise or vise grips, and a metallic cartridge loader in caliber desired.

ASSEMBLY PROCEDURE

STEP #1:

After selecting the desired ammunition bullets you want to make tracers out of (never use hollow core, core locked, soft core, or liquid core ammunition as they tend to explode in flight with our additions) it is then necessary to locate the approximate center of the base of the bullet.

STEP #2:

After locating this center it is necessary to mark this approximate center with a pen (felt tip).

STEP #3:

You must now secure some magnesium ribbon or reasonable facsimile. Magnesium ribbon is a common form of this metal and can be found in numerous places. (Example: High school and college chemistry classes or a local chemical supply company). The size that is preferred is 1/16 diameter.

STEP #4:

Place a marked base bullet in a vise or similar secure location and take a drill with a bit that is the same size or smaller than the outside diameter of the magnesium ribbon and drill a hole straight down into the bullet approximately 1/4 inch. This hole cannot be beveled in any way as the ribbon may slide out in flight.

STEP #5:

After drilling this hole insert a 1/2 inch long piece of ribbon into this hole and rap it with a hammer to secure it in place. These are now ready to be loaded into the cartridge case with a normal

amount of powder. It is not necessary to exceed load specifications to assure tracer ignition. If ignition is not positive a light coating of petroleum jelly (NOT PETROLEUM) on the exposed ribbon. Film is good word to use for the amount of coating.

If, When fired, these explode in flight (a common occurrence) then you will need to extend the length of exposed ribbon out to 1/2 inch past the base of the bullet. (no more than this as it could cause the bullet to tumble in flight and hamper accuracy).

When fired this should give off a bright white glow for an infinite distance (normal eyesight). Sometimes to alter the color of the tracers it has been a common practice to coat the exterior with colored phosphorus. We do not recommend this procedure due to barrel life of the weapon used and for the fact that we have not tried this ourselves.

It is also a good measure to mark the tips of the ammunition with paint (like the military) so the user will know that he has a tracer round in hand.

These rounds can be devastating to the life of a barrel on the used weapon. The magnesium gives off excessive heat and gaseous substances that will eventually eat the barrel up or cause excessive rusting or pitting.

We recommend cleaning of the entire weapon immediately after use. On automatics it is imperative to clean even the gas port and gas tubes leading to all exits. If excessive wear is noted it may be necessary to run steaming hot water through these parts and then scrub thoroughly. Make sure to apply light coating of solvent or rust protective after a water cleaning.

We hope you enjoy your new plans and since you have purchased these you are now eligible to purchase all of our other plans sets at a reduced price.

Belt Fed Shotgun: Patent Pending, No BATF approval Req., 25 rounds or more capacity, semi-auto only. For Browning A-3's, and Remington 1100 type systems. (we are studying the Benelli M121 now). It is being studied by Detonics Corp. for production. Reg. \$15.00 now \$10.00.

Assault Rifle/Shotgun Combo: Patent Applied, No BATF approval required. Combine your favorite rifle and shotgun for the ultimate in close and short range firepower. Regular \$15.00 now \$10.00.

Shotgun Grenades: Bore fired from any shotgun, direct in line fire (no lob shots). Mini's are tube loadable. 5 styles for one price. Mini's, 6" High Explosive, 6" High Shrapnel, 6" Incendiary, 6" Time Delay. Reg. \$15.00 now \$10.00

Buy all three for \$27.50.

Most of our plans are as simple and easy to read as our tracers plans. All of them require only common tools and basic knowledge to construct them.

Send orders to: Ryan K. Kephart, Rt.3, Box 65, Murphy, N.C. 28906

The following is a list of slightly harder to acquire and manufacture compositions of tracers. To make these you first need to purchase the chemicals needed from a pharmacy, high school, college, or chemical company. To find chemical companies to contact go to your local public library and go to the reference section. In there you will find company catalogs and listing of companies in the books known as the Thomas Register. It is a group of up to 17 or more very thick and heavy green books and has listings of every chemical manufacturer in the nation. Write to them for a catalog or specific need.

To make them after acquiring the chemicals you need to get about six small containers of equal size. Then fill each of them with the individual chemicals. One chemical per container.

Now take another container of exact same size and mark it at 10 per cent intervals at equal spacings to make them all equal 100 per cent for the entire length of the container.

Now start filling the empty container with the approximate amounts at the exact intervals needed per chemical. For example if you needed 27% magnesium then you fill the container with 2 tenths and slightly over one half of another tenth mark on the outside of the container. It helps if your containers are all glass or clear plastic. You then measure in the next chemical to its approximate measure in same manner as above.

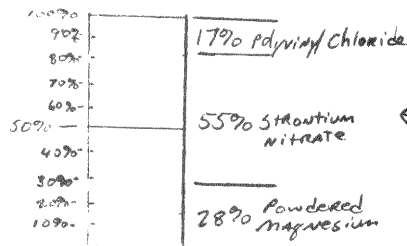
After you have the container filled with all the proper chemicals to their approximate measures then dump all of them into a larger container and mix them thoroughly by shaking vigorously or stirring for a very long time.

You now need to hollow out a bullet base in the same manner as the original way in the first half of these plans. You now pour in just enough of this compound to fill it and then cover it with a thin coat of highly flammable glue. You then load it into your bullet casing. The following are the compositions needed for mixing.

WHITE
 35% Magnesium
 32% Strontium Nitrate
 31% Barium Peroxide
 2% Calcium Resinate

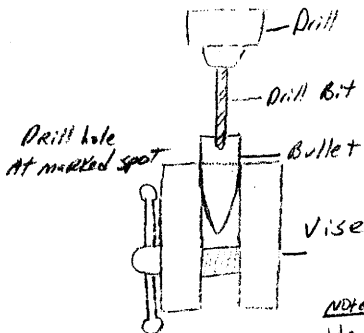
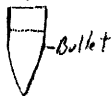
RED
 28% Magnesium
 55% Strontium Nitrate
 17% Polyvinyl Chloride

RED
 27% Magnesium
 26% Strontium Peroxide
 5% Strontium Oxalate
 33% Strontium Nitrate
 9% Calcium Resinate



To left is
 ← example how
 to measure
 approximate
 amounts of chemicals.

Find and mark
Exact Center



NOTE: Do not Borel
the inside of
the hole or the
Ribbon could Fall out.

Insert Ribbon
and Tap in place



Light coating of
Petroleum Jelly
Assures Magnesium
Ignition



Now load into normal
load cartridge case
Use slightly tighter
than normal crimp.



NOTE: If you just can't
find the ribbon or can't
get it to ignite then resort
to the procedure on the
mixture type. If it won't
work then purchase a common
road flare that looks like a
stick of dynamite and take
the composition out of it
and then mix and pack like in
the mixture method. It is
a sure fire method but a
little more expensive.