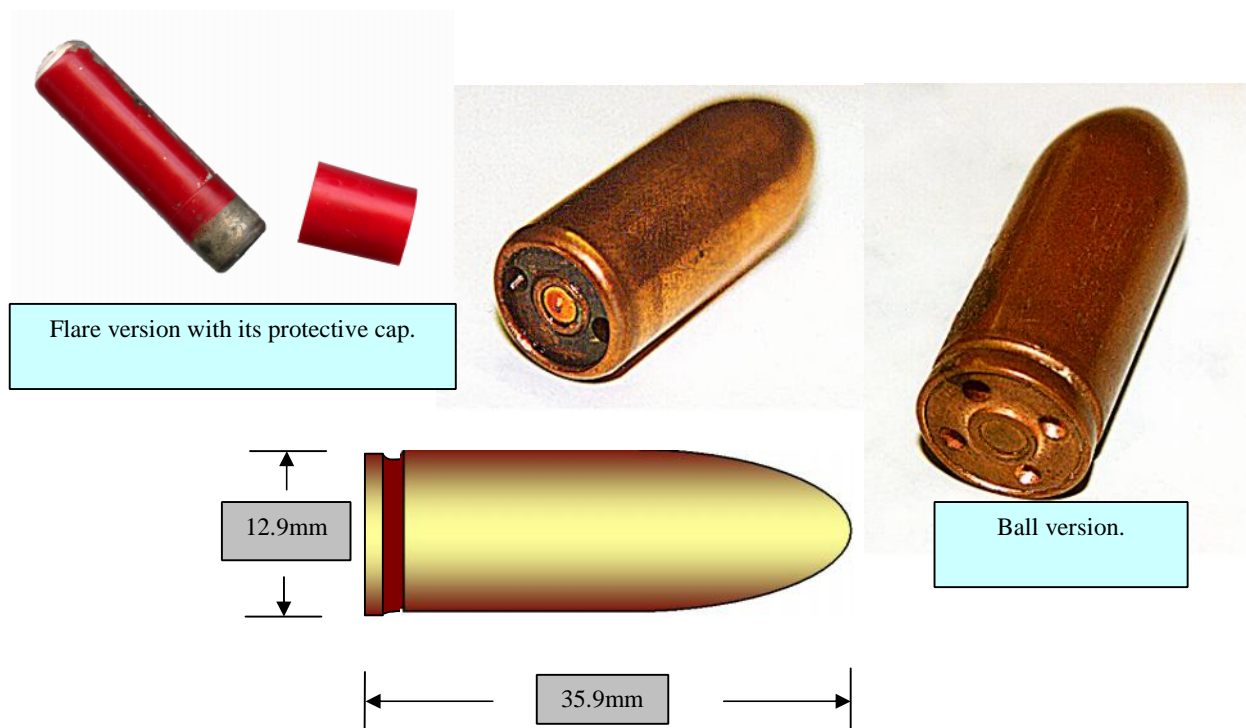


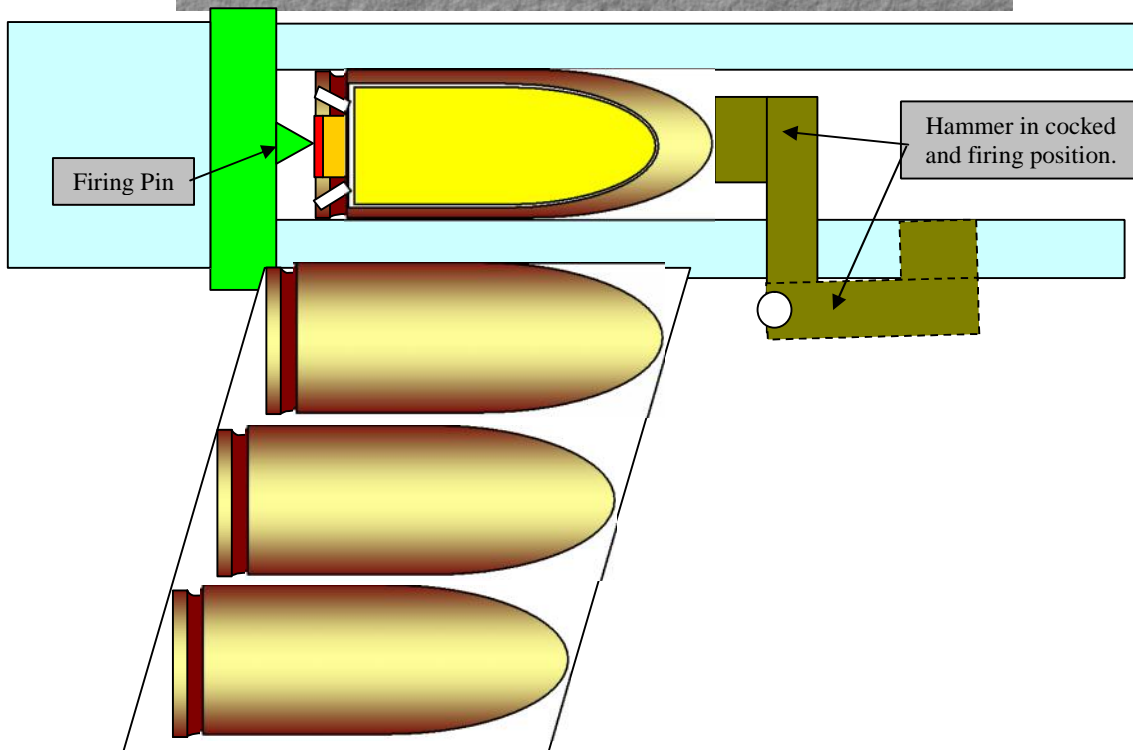
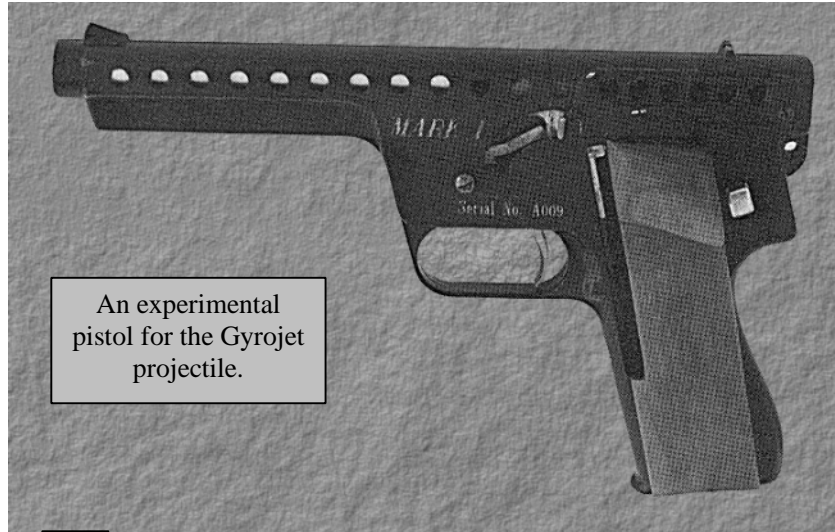
GYROJET PROJECTILES

The concept for these projectiles originates in the 1800s when the “Volcanic” appeared although the volcanic didn’t carry its own priming. The idea with this version being that the projectile carries both the primer and the propellant within the body of the projectile. Several problems arise with this approach. One is the simple fact that as the propellant burns the weight changes thus affecting the ballistic properties of the projectile. Secondly the propellant being contained in the projectile limits the pressure at which the propellant can burn, this ensures that the acceleration of the projectile is relatively slow but it does increase until the propellant is exhausted. Thirdly the cost of assembling all the components into the projectile is in fact prohibitive. The barrel being purely a guiding device for the first few milliseconds consists of a pierced tube along which the projectile slides. This means that there is no recoil force to deal with and very little wear. Finally, when all is said and done, just how much propellant can you cram into a 13mm projectile?

This modern version appeared around 1965 in America being shown by Gyrojet Corporation and was tested by the US Military in Vietnam. It would appear that the concept is sound but cost is the limiting factor as the weapon has not been adopted by any serious military services or branches thereof.

The projectiles were produced in sizes up to 13mm and were used in pistols and a carbines.





After a magazine is inserted into the weapon the trigger is pulled and the hammer that is located in front of the projectile is driven onto the nose of the projectile forcing the primer onto the firing pin. The flash from the primer ignites the propellant and the resulting gasses propel the projectile along the barrel. As the projectile moves forward it recocks the hammer ready for the next sequence. The gasses are vented to the atmosphere through 2 or more angled nozzles that provide the necessary rotation to stabilise the projectile in flight.