First test of the parachute piston ejection system completed without any serious damage to the rocket or unexpected behavior of the system. Generally, I would call it a success. Here are some notes:

* Parachute and nose cone ejected vertically in the air and reached max shock cord length
* No visible signs of any damage caused by the gun powder to the rocket
* Lots of soot between the piston canister bulkhead and piston cap, which is to be expected
* There were not significant amounts of soot in any other areas, especially critical regions including the flight computer or battery storage
  + There was a trace amount in the parachute storage section, but nothing to be concerned about
* Piston cap did not eject from the rocket tube as I was expecting
  + Not super critical as the rest of the system performed as expected
  + There was a decent amount of tape around the piston cap which could have prevented it from moving
  + Black powder gases likely escaped through gaps between shock cord and piston cap or piston cap and body tube
  + Next test I will try it without tape
* There was a flame that went out the side of the rocket right where the piston canister bulkhead was mounted
  + I’m not sure where those gases escaped from as there’s no sign of any holes created or leaks
  + My guess is that it escaped from the removeable access panel (a tiny cardboard cut out section allowing me to access flight computer and battery)
  + There was a very small amount of discoloration on the outside of the battery mount, which I assume is where it escaped
  + Didn’t cause any sort of failure and didn’t pose a threat to critical areas, but still an area of concern for next test
  + Need to ensure a better seal with the super glue on the piston canister bulkhead’s retaining ring
* Could probably use slightly less gunpowder
  + I filled both of the canisters about ¾ full with black powder, which was well more than sufficient
  + I could probably fill them up halfway next time
* Parachute was deployed by the time the shock cord snapped back meaning the packing was good