



## 40mm MK19 Non-Lethal Munition - Short Range

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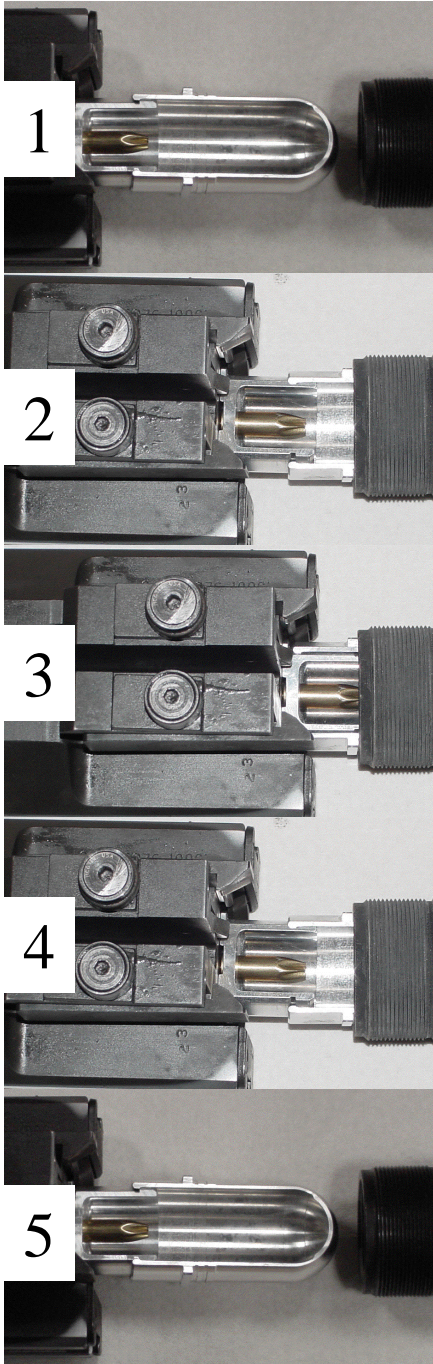
## Briefing Outline:

- Description
- Operational need
- Performance requirements
- Concept of Employment firing demonstration
- Summary



Description: The MK19 Non-Lethal Short Range cartridge uses a telescoping cartridge case to provide weapon powering while launching non-lethal payloads. A variety of candidate payloads have been demonstrated, with multiple rubber balls being the leading candidate for initial fielding.





Blank cartridge



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## Description of telescoping case feature:

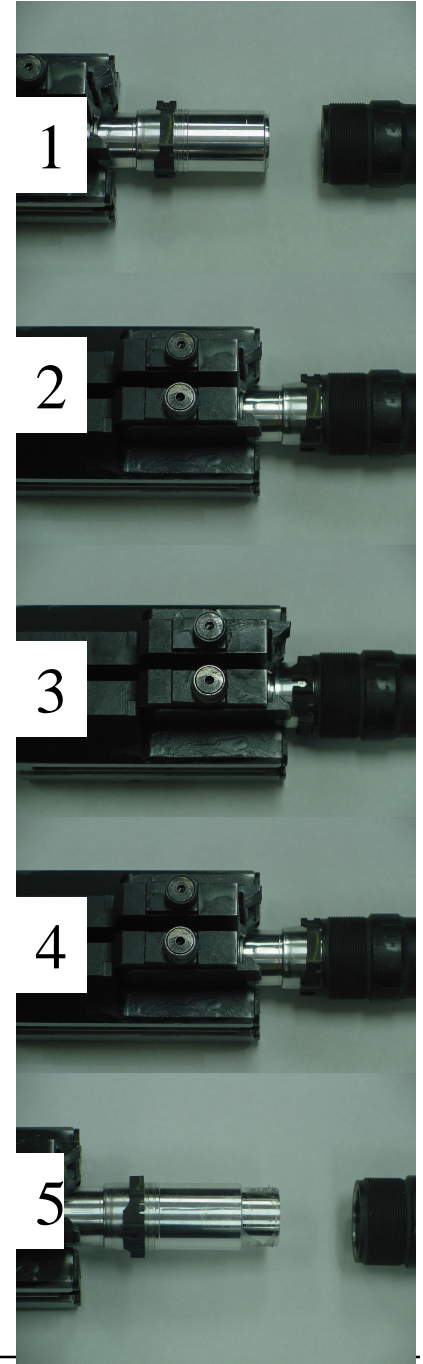
Picture 1 - cartridge prior to chambering

Picture 2 - cartridge chambering, case starting to telescope

Picture 3 - case fully telescoped closed at the moment of firing

Picture 4 - fired cartridge fully telescoped open

Picture 5 - bolt recoiling with fired cartridge



NL Payload Cartridge

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## User perspective:

**“In my own experiences, pictured below, a MK-19 with NL Capabilities would provide tremendous overwatch and capability to push back a violent crowd as opposed to just engage a single agitator.**

**.... If the MK-19 in the foreground had NL Munitions, they would have been able to clear the crowd and re-open the bridge behind them.**

**....In cities and villages, a MK-19 could be extremely helpful in the event that you have a massive crowd of non-combatants who are being exploited by agitators and violent handlers to neutralize your position or deny necessary access.”**

**--LTC Jim Brown**



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### Preliminary performance requirements:

Minimum engagement range of 10 meters

Maximum effective range of 50 meters

Weapon cyclic rate 275 shots per minute

### Other considerations:

No weapon modifications required

Trajectory compatible with existing weapon sights

Non-lethality concerns including potential for eye injuries



## Concept of Employment Firing Demonstration:

Firing demonstration was conducted at Fort Leonard Wood on 25 SEP 2002

Representatives from the various services witnessed the demonstration, including BG Curry, Commandant, US Army Military Police School; COL Lamb, Assistant Commandant; COL Karcher, Director of the Joint Non-Lethal Weapons Directorate; and senior NCOs from the various services.





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Ten round burst:





Five round burst of multiple rubber balls:





## Summary:

The 40mm MK19 Non-Lethal Short Range cartridge concept has been successfully demonstrated.

Cartridge configuration adaptable to a wide variety of payloads.