The performance of novel obscurant particles depends greatly on effective dissemination. Dissemination of traditional obscurants can be tremendously dependent on particle charge. Furthermore, the performance of obscurants in the explosive reaction or from the intense gas heating and pressure discontinuities of the shock wave, or perhaps resulting from the breaking of the particle’s frangible surface boundaries. We hypothesize that charge could be imparted to the individual particles possibly helping disperse the particles? If so, could something be done to pre-charge the particles? Questions were posed to various SMEs and a data validation was undertaken to ensure that imparts charge to the individual particles.

**EXPERIMENTAL DEVICES**

- **Explosives:** 1/2 M106 body, Lucas 4-cut center bullet. Filled with 138 cc of pyrophoric material.
- **Pneumatic Device:** 1.15" sand nozzle. 3 to 6 PSI air pressure.
- **Pneumatic Device:** Free throw sprayer with scissor charger.
- **Air Abrasion:** High pressure air, 100 PSI, 0.3 kg glass particle. (30 micron particle product).
- **Pyrotechnic Device:** Ignition mix (1:7 dry-powder emulsion)
- **Combustion:** HUMVEE diesel

**CHARGE DETERMINE**


**DISCUSSION**

**REFERENCES**


**ACKNOWLEDGMENTS**

The authors wish to thank B. Elder for creating the explosive test devices and operating the explosive test chamber, Dr. Ellen Blair for use of the explosive test chamber, and closing up our business, and Dr. Brian Gray for input during the project.

**Aerosol Particle Charging in Explosive Disseminations**

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