Agenda

- Problem
- Cause & Effect
- Technical Solutions
  - Advanced Case System
  - Skive Joint Modification
  - M14 Propellant Replacement
  - Loader Tray Upgrade (discussion)
- Path Forward
Problem

Three Incidents of Training Cartridge Ignition Resulting in Fatalities or Injury
Cause & Effect

- Ignition Caused by a “Perfect Storm” of Events
  - Cartridge Case Damage Caused by Extraction of Non-Fired Round from 2\textsuperscript{nd} Gen Loaders Tray
  - Damage is not Facing Loader—Damage Goes Unnoticed
Cause & Effect

- Chip in the Ready Rack Coating Previously Exists
- Diethyl Ether Fumes Escape from Just Right Sized Hole
- Round Placed in Ready Rack Causing Static Charge-Then Removed for Firing
- Venting Ether is Ignited Due to Electro Static Discharge
Cause & Effect
Advanced Case System

- ACS Program Eliminates the Bond Joint at Projectile Forward End of Cartridge

Current Case

- Inert skive joint
- Combustible

ACS Case

- Inert
- Combustible double wall overlap

Double Wall Overlap ACS Case

M865 ACS Double Wall 4\'\' in Gap

DISTRIBUTION STATEMENT A:
Approved for Public Release;
Distr. Unlimited
Skive Joint Modification

- Large Stockpiles of M865, M831A1 and M1002 Training Cartridges with Forward Skive Joint

- ACS Cannot be Applied to M831A1/M1002 in Inventory
M14 Propellant Solution

- Potentially Replace M14 Propellant with Less Vulnerable Solution
- Competitive Contracts with Promising Results
- Reduction in R&D Overall Risk - Leverage Previous Efforts
- Affordability is an Exit Criterion
Path Forward

- **FY11**: Skive Joint Modification to Existing Stockpile
- **FY11**: ACS Solution to Future Production of M1002/M865
- **FY14**: M14 Replacement Based Decision by USMC / Army