



ANTI-MATERIEL SNIPER RIFLE CONGRESSIONAL PROGRAM



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ANTI-MATERIEL SNIPER RIFLE CONGRESSIONAL PROGRAM

- The objectives of this program were to develop technologies in the following areas:
 - Smaller/Lighter Individual and Crew Served Weapons
 - Innovative Breech Locking Designs
 - Innovative Weapon Mounts
 - Electrical Energy Generation and Storage
- Contractors
 - Barrett Firearms Manufacturing, Inc.
 - Cape AeroSpace
 - FN Herstal SA
 - Materials & Electrochemical Research (MER) Corporation

BARRETT FIREARMS MANUFACTURING, INC.

Lightweight M107 LRSR



Specifications

Caliber: .50 cal BMG
Weight: 23.7 lbs
Length: 57 inches
Operation: Semi-Automatic, Gas

Material change provides 30% weight reduction of M107 LRSR.

BARRETT FIREARMS MANUFACTURING, INC.

XM500 Anti-Material Rifle



Specifications

Caliber: .50 cal BMG
Weight: 26 lbs
Length: 46 inches
Operation: Semi-Automatic, Gas

Increased mobility, lighter, shorter length than M107 LRSR.

BARRETT FIREARMS MANUFACTURING, INC.

XM109 Anti-Materiel Payload Rifle



XM109-Demo.WMV

Caliber	25mm, Objective Individual Combat Weapon
Operation	Semi-Automatic
Barrel Length	17.6 inches (44.70 cm)
Rifling Twist	1 in 22
Rifle Weight	35.12 pounds (15.93 kg)
Overall Length	46 inches (116.84 cm)

CAPE AEROSPACE

- Cape AeroSpace demonstrated mechanical to electrical energy conversion using piezoelectric crystals in gas and recoil operated weapon systems



FN HERSTAL, S. A.

- FN Herstal SA prototype High Velocity 40mm Grenade Launcher
- Provides man portable high velocity 40mm capability

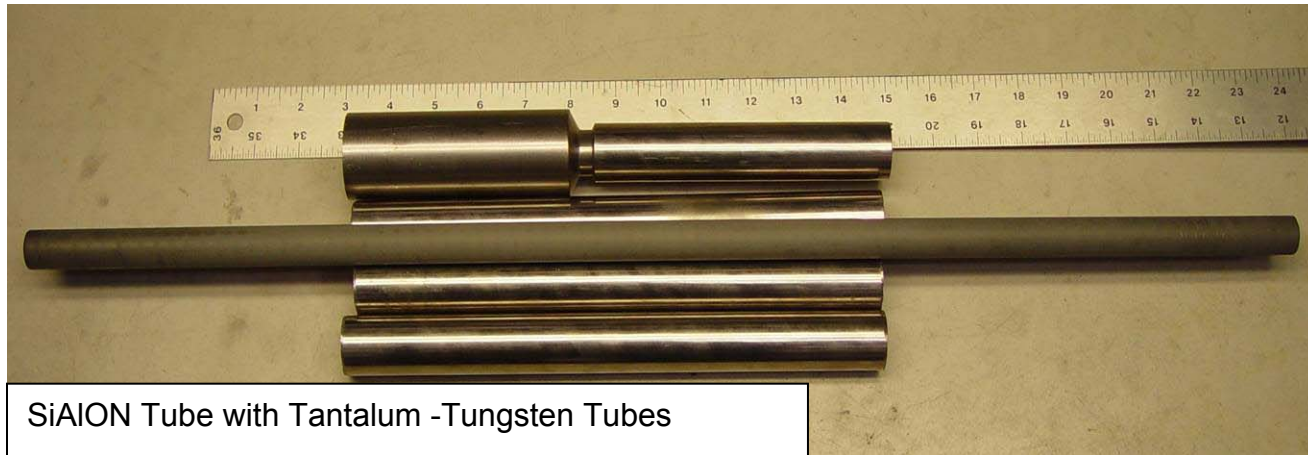


Specifications

Weight	17 lbs (threshold)
Length	32 Inches
Height	9.25 Inches
Width	5.0 Inches

MATERIALS & ELECTROCHEMICAL RESEARCH CORPORATION

- Lightweight composite .50 cal barrels
 - Thin Metal Liner, Tantalum-Tungsten
 - Ceramic Liner, Silicon Aluminum Oxynitrate



SiAlON Tube with Tantalum -Tungsten Tubes



SiAlON Tube before and after PTA Over Wrap



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SUMMARY

- The objectives of this congressional program were met.
- The demonstrated technologies can be further developed to address Joint Service needs.