

Excalibur (XM982)

Provides improved fire support to the maneuver force with precision-guided, extended range, more lethal but collateral damage-reducing artillery projectiles.

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

Description & Specifications

The Excalibur (XM982) is a 155mm, Global Positioning System (GPS)-guided, fire-and-forget projectile under development as the Army's next-generation cannon artillery precision munition. The target, platform location, and GPS-specific data are entered into the projectile's mission computer through an enhanced portable inductive artillery fuze setter or automated system on the Future Combat Systems (FCS) Non-Line of Sight-Cannon (NLOS-C).

Excalibur uses a jam-resistant internal GPS receiver to update the inertial navigation system, providing precision guidance and dramatically improving accuracy regardless of range. Excalibur weighs 106 pounds, has three fuze options: height-of-burst, point-detonating, and delay/penetration; and is effective in all weather conditions and terrain.

The program is using an incremental approach to provide a combat capability to the Soldier as quickly as possible, and to deliver advanced capabilities and lower costs as technology matures. The initial variant (Block Ia-1) is being fielded in 2007 to provide an urgently needed capability. It includes a unitary high-explosive warhead capable of penetrating urban structures, but is also effective against point targets, personnel targets, such as dismounted infantry and weapon crews, and light materiel targets, including air defense rockets, radars, and wheeled vehicles. Block Ia-2 will provide increased range (up to 40 kilometers) and reliability improvements. The third variant (Block Ib) will maintain performance and capabilities while reducing unit cost.

Excalibur is designed for fielding to the digitized Lightweight 155mm Howitzer, the 155mm M109A6 self-propelled howitzer (Paladin), the Future Force indirect fire weapon (FCS NLOS-C) and the Swedish Archer howitzer. Excalibur is an international

cooperative program with Sweden, which contributes resources toward the development in accordance with an established project agreement and plans to join in procurement.

Program Status

- **3QFY06:** Completed developmental testing of Block Ia-1 and entered low rate initial production
- **1QFY07:** Completed first article testing and production verification testing of Block Ia-1

Projected Activities

- **3QFY07:** Field the first Excalibur precision artillery capability
- **3QFY07:** Milestone C: Enter the production and deployment phase for Block Ia-2
- **4QFY08:** Full materiel release and initial operational capability for Block Ia-2



ACQUISITION PHASE

Concept & Technology Development

System Development & Demonstration

Production & Deployment

Operations & Support



Excalibur (XM982)

FOREIGN MILITARY SALES

Canada (Block Ia-1)

CONTRACTORS

Systems integration:

Raytheon (Tucson, AZ)

Systems engineering:

BAE Systems Bofors Defense (Karlskoga, Sweden) teamed with Raytheon (Tucson, AZ)

Control actuator:

General Dynamics Ordnance and Tactical Systems (Healdsburg, CA)

GPS receiver:

L-3 Communications Interstate Electronics Corp. (Anaheim, CA)

Warhead:

General Dynamics Ordnance and Tactical Systems (Niceville, FL)

