

Mortar Systems

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

Provides enhanced lethality, accuracy, responsiveness, and crew survivability while reducing the logistics footprint.

DESCRIPTION

The Mortar Fire Control System (MFCS)-equipped mortar systems provide organic, indirect fire support to the maneuver unit commander.

All three Army variants of 120mm mortar systems, have been qualified and are being equipped with MFCS. All of the mortar systems fire a full family of ammunition including high-explosive, infrared and visible light illumination, smoke, and training. The M120 120mm Towed Mortar System is transported by the M1101 trailer and is emplaced and displaced using the M326 Mortar Stowage Kit (MSK). The mounted variants are the M121 120mm mortar, used on the M1064A3 Mortar Carrier (M113 variant), and the 120mm Recoiling Mortar System, used on the M1129 Stryker Mortar Carrier.

Lightweight variants of the M252 81mm Mortar System and M224 60mm Mortar System have been qualified and are in production/fielding. Both systems provide high-rate-of-fire capability and are man-portable.

The M95/M96 MFCS-M, used on the M1064A3 and M1129, and the M150/M151 MFCS-D, used with the M120, combine a fire control computer with an inertial navigation and pointing system, allowing crews to fire in under a minute, improving lethality, accuracy and crew survivability.

The M32 Lightweight Handheld Mortar Ballistic Computer (LHMBC) has a tactical modem and embedded Global Positioning System, allowing mortar crews to send and receive digital call-for-fire messages, calculate ballistic solutions, and navigate.

The XM395 Accelerated Precision Mortar Initiative (APMI) achieved an Urgent Materiel Release (UMR) in March 2011 to field to eight Infantry Brigade Combat Teams (IBCTs) in Operation Enduring Freedom based on an Operational Need Statement (ONS). UMR for an additional Stryker BCT (SBCT) was approved in

May 2012. The Army fully funded the ONS requirement of 5,480 cartridges and associated fuze setting systems.

In 2011, Training and Doctrine Command and Army Test and Evaluation Command completed an assessment, with a recommendation for this capability to proceed to the Capabilities Development for Rapid Transition process. Any follow-on program of record will include full and open competition.

SYSTEM INTERDEPENDENCIES

In this Publication

Advanced Field Artillery Tactical Data System (AFATDS)

Other Major Interdependencies

M95/M96 MFCS-M and M150/M151 MFCS-D

PROGRAM STATUS

- **2QFY12-4QFY12:** MFCS-M fielded to one Stryker Brigade Combat Team (SBCT), one Heavy Brigade Combat Team (HBCT) Reset, and one SBCT Reset
- **1QFY12-4QFY12:** MFCS-D fielded to ten IBCTs and one Infantry Battalion
- **1QFY12-4QFY12:** LHMBC fielded to two SBCTs, one SFG, and four IBCT Resets

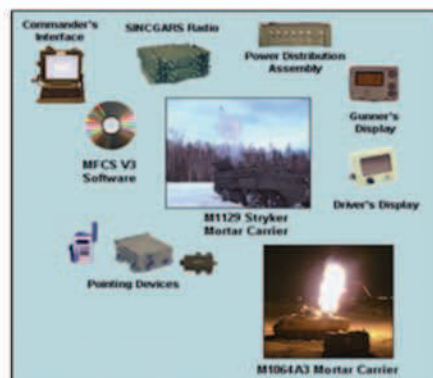
- **1QFY12-4QFY12:** 454 Mortar Weapon Systems (Lightweight 60mm, 81mm, 120mm) fielded to numerous IBCTs, HBCTs, SBCTs and FSGs
- **1QFY12-4QFY12:** MSK fielded to ten IBCTs and one Infantry Battalion
- **1QFY12-4QFY12:** Continued production of 60mm, 81mm, and 120mm mortar weapon systems
- **1QFY12-4QFY12:** Continued production of MSKs, and MFCS-D
- **4QFY12:** Complete production of LHMBCs
- **1QFY12-4QFY12:** Successfully conducted New Equipment Training for APMI to eight IBCTs, one Ranger Battalion, and 1 SBCT in OEF

PROJECTED ACTIVITIES

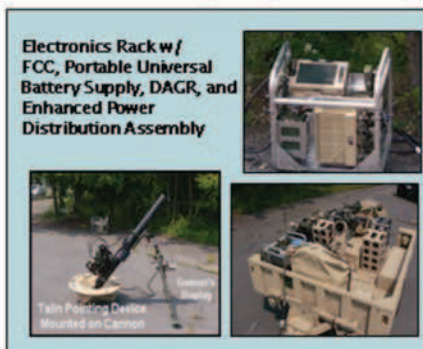
- **1QFY13-4QFY13:** Continue production of 81mm mortar systems
- **1QFY13-4QFY13:** Continue fielding of the 60mm Lightweight Mortar
- **2QFY13:** Complete production of 60mm lightweight mortar systems
- **3QFY13:** Initial Fielding of the 81mm Lightweight Mortar (M252A1)
- **1QFY13-4QFY13:** Continue production and fielding of MFCS-D
- **3QFY13:** Complete production of MSK

ACQUISITION PHASE

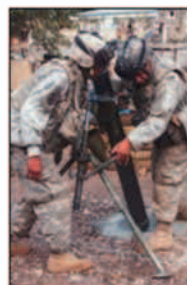
Technology Development	Engineering & Manufacturing Development	Production & Deployment	Operations & Support
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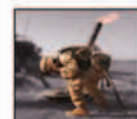
Mortar Fire Control System (MFCS-Mounted)



Mortar Fire Control System (MFCS-Dismounted)



Mounted Weapon System Production



M120 120mm Mortar



M121 120mm Battalion Mortar System



M120 Towed Mortar on M326 Quick Stow Mount



60mm Lightweight Mortar System



81mm Lightweight Mortar System



M1064A3 Mortar Carrier



Mortar	Range (meters)	Weight (pounds)	Rate of Fire (rounds per minute)	Crew	Ammunition
M120/ M121 120mm	7240	319	16 for the first minute 4 sustained	4 M121 carrier-mounted 5 M120 towed	High-explosive (HE) (M934A1), white phosphorus smoke (M929), illumination (visible light, M930 and infrared [IR], M983), M933A1 (operational training), and full-range practice (FRP) (M931)
M252 81mm	5935	90	30 first two minutes 15 sustained	3	HE (M821A2), red phosphorus smoke (M819), illumination (visible light, M853A1 and IR, M816), M889A2 (operational training), and FRP (M879)
M224 60mm	3489	46.5 (conventional), 18.0 (handheld)	30 first four minutes 20 sustained	3	HE (M720A1), WP smoke (M722A1), illumination (visible light, M721 and IR, M767), M768 (operational training), and FRP (M769)

Mortar Systems

FOREIGN MILITARY SALES

Afghanistan, Australia

CONTRACTORS

60mm and 81mm Mortar Bipod

Production:

MaTech (Salisbury, MD)

60mm and 81mm Baseplate

Production:

AMT (Fairfield, NJ)

MFCS-D and MFCS-M production, fielding, and installation:

Elbit Systems of America (Fort Worth, TX)

M32 LHMBC (R-PDA):

General Dynamics C4 Systems, Inc.
(Taunton, MA)120mm, 81mm, and 60mm cannons,
120mm baseplates:

Watervliet Arsenal (Watervliet, NY)

