

Mortar Systems

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

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

DESCRIPTION

Mortar Fire Control System (MFCS)-equipped mortar systems provide organic, indirect fire support to the maneuver unit commander. Mortars are employed in light and heavy forces, with towed- and tracked-carrier versions.

The Army uses three variants of 120mm mortar systems, and all 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 Mortar Fire Control System-Mounted (MFCS-M), used on the M1064A3 and M1129, and the M150/M151 Mortar Fire Control System-Dismounted (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, greatly improving mortar 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.

SYSTEM INTERDEPENDENCIES

In this Publication

Advanced Field Artillery Tactical Data System (AFATDS)

Other Major Interdependencies

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

PROGRAM STATUS

- **1QFY11-4QFY11:** MFCS-M fielded to one Heavy Brigade Combat Team (HBCT), one HBCT Reset, and two Stryker Brigade Combat Team (SBCT) Resets
- **1QFY11-4QFY11:** MFCS-D fielded to seven Infantry Combat Teams (IBCTs)
- **1QFY11-4QFY11:** LHMBC fielded to five IBCTs, one Special Forces Group (SFG), one HBCT Reset, and twelve IBCT Resets
- **1QFY11-4QFY11:** Mortar Weapon Systems (60mm, 81mm, 120mm) fielded to numerous IBCTs, HBCTs, SBCTs and Special Forces groups
- **1QFY11-4QFY11:** Mortar Stowage Kits (MSK) fielded to seven IBCTs.
- **3QFY11:** 60MM Lightweight Mortar (M224A1) fielded to one SFG, First Unit Equipped (FUE)
- **1QFY11-4QFY11:** Continue production and fielding of 60mm,

81mm, and 120mm mortar weapon systems

- **1QFY11-4QFY11:** Continue production and fielding of MSKs, MFCS-D and LHMBCs

PROJECTED ACTIVITIES

- **1QFY12:** Initial Fielding of the 81mm Lightweight Mortar (M252A1)
- **1QFY12-4QFY12:** Continue production and fielding of 60mm and 81mm lightweight mortar systems
- **1QFY12-4QFY12:** Continue production and fielding of MSKs, MFCS-D, and LHMBCs
- **1QFY12-4QFY12:** Complete fielding of MFCS-M

ACQUISITION PHASE

Technology Development

Engineering and Manufacturing Development

Production and Deployment

Operations and Support



Mortar Fire Control System (MFCS-Mounted)



Mortar Fire Control System (MFCS-Dismounted)



Mounted Weapon System Production



M1064A3 Mortar Carrier



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 (Ft. Worth, TX)

M32 LHMC (R-PDA):

General Dynamics C4 Systems Inc.

(Taunton, MA)

120mm, 81mm, and 60mm Cannons

and 120mm Baseplates:

Watervliet Arsenal (Watervliet, NY)

Mortar	Range (meters)	Weight (pounds)	Rate of Fire (rounds per minute)	Crew	Ammunition
M120/ M121 120mm	7,240	319	16 for the first minute 4 sustained	4 M121 carrier-mounted 5 M120 towed	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	5,935	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	3,489	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)

