

Lightweight 155mm Howitzer (LW 155)

Provides direct, reinforcing, and general support fires to maneuver forces as well as direct support artillery for Stryker Brigade Combat Teams.

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

Description & Specifications

The Lightweight 155mm Howitzer (M777) is the general support artillery for the Army's light forces. The use of titanium in its major structures makes it 7,000 pounds lighter than its predecessor (the M198) with no sacrifice in range, stability, accuracy, or durability. Two M777s can be transported by a C-130, and it can be dropped by parachute. The M777's lighter weight, smaller footprint, and lower profile increase strategic deployability, tactical mobility, and survivability. The automatic primer feeding mechanism, loader-assist, digital fire control, and other improvements enhance reliability and give light artillery a semi-autonomous capability found only in self-propelled howitzers.

The M777 is jointly managed, with the Marine Corps having led the development of the howitzer and the Army having led the development of Towed Artillery Digitization (TAD),

the digital fire control system for the M777. Once type classified, the digital fire control-equipped howitzer will be designated the M777A1.

Software updates and the Platform Integration Kit (PIK) hardware will give the M777A2 the capability to fire the Excalibur precision guided munition. The specifications of the Excalibur-compatible howitzer are:

- Weight: 10,000 pounds or lighter with TAD
- Emplace: Less than three minutes
- Displace: Two to three minutes
- Maximum range: 30 km (assisted)
- Rate-of-fire: Four to eight rounds per minute maximum; two rounds per minute sustained
- Ground mobility: Family of Medium Tactical Vehicles, Medium Tactical Vehicle Replacement, five-ton trucks
- Air mobility: Two per C-130; six per C-17; 12 per C-5; CH-53D/E; CH-47D; MV-22

- 155mm compatibility: all fielded and developing NATO munitions
- Digital fire control: self-locating and pointing; digital and voice communications; self-contained power supply.

PROGRAM STATUS

- **Current:** Completed low rate initial production (LRIP) for 94 Marine Corps howitzers with conventional fire control; joint full rate production of 495 M777A1 systems ongoing; first units fielded; digital fire control program synchronized with basic howitzer program; future weapons will use digital fire control, with optical fire control as backup; previous built LRIP howitzers retrofitted with digital fire control

PROJECTED ACTIVITIES

- **2QFY07:** Army initial operational capability of M777A1 (howitzer with digital fire control)
- **1QFY10:** Full operational capability

ACQUISITION PHASE

Concept & Technology Development

System Development & Demonstration

Production & Deployment

Operations & Support

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FOREIGN MILITARY SALES

The LW 155 development was a cooperative effort with both the United Kingdom (UK) and Italy, and the UK remains a partner in production. To date, Canada has purchased 12 howitzers under an FMS case with six delivered and four currently deployed to Afghanistan. The UK and Australia are likely to purchase the system in the near future.

CONTRACTORS

Prime:

BAE Systems (United Kingdom and Hattiesburg, MS)

Castings:

Precision Castparts Corp. (Portland, OR)
Howmet Castings (Whitehall, MI)

Digital Fire Control:

General Dynamics (Burlington, VT)

Howitzer body:

Triumph Systems Los Angeles
(Chatsworth, CA)

