

INDIRECT FIRES

CURRENT PROCUREMENTS

A LOOK AT THE NEW TECHNOLOGIES
MAXIMIZING THE U.S. ARMY'S FIRES
CAPABILITIES





A GLANCE AT THE NEW TECHNOLOGIES MAXIMIZING THE U.S. ARMY'S FIRES CAPABILITIES

Ahead of the **Future Indirect Fires USA Summit**, taking place this September 26-28 in Lawton, OK, we took a look at the new technologies that are increasing the U.S. Army's fires capabilities. The Army is currently investing in many new solutions to increase lethality, accuracy and mobility. The 2019 Army ammunition budget allocates more than \$376 million toward the purchase of high-explosive and Excalibur rounds, which have been fired more frequently in the fight against the Islamic State than in the previous 40 years.

This eBook covers:

- The Army's Tactical Missile System
- Joint Effects Targeting System (JETS)
- Long-Range Precision Fires
- M1156 Precision Guidance Kits
- M776 Full-Bore Chrome Tubes
- M982 Excalibur Satellite-Guided Heavy Artillery Shells
- Next-Generation Laser-Guided 120MM Mortar System

ARMY TACTICAL MISSILE SYSTEM

\$358M CONTRACT

Awarded to Lockheed Martin

NEW LONG-RANGE, SURFACE-TO-SURFACE MISSILE

6/25/18

The U.S. Army awarded Lockheed Martin a \$358 million production contract for the Army Tactical Missile System (ATACMS), which will allow for a service life-extension program for old missiles. Lockheed Martin will also produce new missiles for a Foreign Military Sales customer, the company announced on Monday. The ATACMS is the Army's sole surface-to-surface, long-range, 300-kilometer missile system. Under the contract, Lockheed will update and build new missiles at the rate of 320 per year in Camden, Arkansas, at the Precision Fires Production Center of Excellence. The ATACMS's will be packaged in a Guided Missile Launch Assembly pod and will be fired from the Multiple Launch Rocket System family of launchers.



(Photo by Sgt. Katherine Grandori/Arkansas National Guard Public Affairs)

JOINT EFFECTS TARGETING SYSTEM (JETS)

\$339.3M CONTRACT

Awarded to Leonardo DRS

JETS TO PROVIDE DIGITAL CONNECTIVITY

1/19/18

The Joint Effects Targeting System (JETS) Target Location Designation System (TLDS) is an Army-led, joint-interest program with the Air Force and Marine Corps to develop and field a one-man-portable, hand-held capability to rapidly acquire, precisely locate, and engage targets with precision-guided munitions, and improve the effectiveness of engagement with unguided munitions.

The Joint Effects Targeting System will answer the need for a lightweight, highly accurate targeting system that allows for target engagement with precision munitions (Joint Direct Attack Munition, Excalibur and laser-guided weapons) and provide the warfighter with crucial digital connectivity to request and control indirect fires and close air support from all Joint assets. According to the Army, the device is expected to be fielded to every forward observer team beginning in July 2018.



(Photo by U.S. Army)

LONG-RANGE PRECISION FIRES

\$116M CONTRACT

Awarded to Raytheon

\$74M CONTRACT

Awarded to Lockheed Martin

TECHNOLOGY DEMONSTRATION PROJECTED FOR NEXT YEAR

3/20/18

Defense News reported that the U.S. Army is planning to demonstrate precision-strike missiles, ramjet projectiles, hypersonics and other technologies under the Long-Range Precision Fires (LRPF) program within the next two years. Brig. Gen. Stephen Maranian, the LRPF cross-functional team lead, has publicly shared that the service needs to upgrade its surface-to-surface fire capabilities to ensure a "clear overmatch" against potential threats. The LRPF cross-functional team intends to convert the Army's self-propelled M109A7 howitzer into extended-range cannon artillery, start development work on an autoloader to boost the cannon's volume of fire and further develop the LRPF capability to home in on targets at "strategic ranges." The service plans to demonstrate missile prototypes from Lockheed Martin and Raytheon in 2019, according to Brig. Gen. Maranian.

In July 2017, the Army awarded Lockheed a three-year, \$73.8 million contract to begin work on the second phase of the LRPF program. Lockheed's award comes a month after Raytheon received a separate \$116.4 million contract for the LRPF program's technology maturation phase. This phase covers test of missile components to ensure that the platform is ready to enter the manufacturing development and engineering stage, as well as start live-fire tests before the end of 2019.



(Photo by Spc. Gabrielle Weaver/U.S. Army)

M1156 PRECISION GUIDANCE KITS

\$69.5M CONTRACT

Awarded to Orbital ATK

ADDITIONAL M1156 PRECISION KITS FOR ARMY & MARINE CORPS

2/28/17

Orbital ATK will be creating 8,001 additional M1156 precision guidance kits for the Army and Marine Corps. The work is anticipated to be completed by January 20, 2020.

The M1156 precision guidance kit is a device used to convert 155mm artillery shells into smart munitions. The shells equipped with the kit are able to receive GPS guidance for increased accuracy. In addition to improving accuracy in combat, Orbital ATK shared that the kits are also ideal for reducing friendly fire and civilian casualties on the battlefield.



(Business Wire)

M776 FULL-BORE CHROME TUBES

\$28M CONTRACT

Awarded to Watervliet Arsenal

CHROME TUBES TO BOOST ARMY READINESS

8/30/17

The Watervliet Arsenal has efforts underway to leverage a newly tested manufacturing process that will improve Soldier and Marine readiness. The Army's recent contract requires the arsenal to manufacture more than 100 M776 Full-Bore Chrome Tubes for the lightweight 155mm towed-howitzer system, the M777A2. The arsenal was given a long lead time to procure the raw stock material and will begin the delivery of the chrome tubes for the Army and the Marine Corps in 2019. Both orders are scheduled to be completed by 2020. These barrels will greatly improve Soldier and Marine readiness, as the chrome plating may provide a nearly 50 percent increase in the life of the howitzer tubes, while making it easier for artillery troops to perform maintenance.

The Watervliet Arsenal is an Army-owned-and-operated manufacturing facility and is the oldest, continuously active arsenal in the United States having begun operations during the War of 1812. The arsenal is a subordinate command to TACOM Life Cycle Management Command and the Army Materiel Command.



(U.S. Army photo by Capt. Grace Geiger (3rd CR))

M982 EXCALIBUR SATELLITE-GUIDED HEAVY ARTILLERY SHELLS

\$94M CONTRACT

Awarded to Raytheon

UPGRADING EXISTING 155-MILLIMETER ROUNDS

6/18/18

Raytheon will be producing M982 Excalibur satellite-guided heavy artillery shells for the U.S. Army under the terms of a \$93.7 million contract. Excalibur has a ruggedized Global Positioning System (GPS) satellite navigation receiver and uses satellite signals to help guide itself to the intended target. The 155-millimeter artillery shell can hit targets as far away as 25 miles, and can detect and attacking moving targets in cities and other complex terrain after being fired from high angles or altitudes.

The M982 Excalibur precision-guided, extended-range artillery shell is a fire-and-forget smart munition with better accuracy than the existing 155-millimeter artillery rounds. The shells are fin-stabilized and are designed to glide to targets with base bleed technology. Additionally, canards are located at the front of the munition that creates an aerodynamic lift. Each individual GPS-guided Excalibur costs roughly \$70,000.



(Photo by U.S. Army)

NEXT-GENERATION LASER-GUIDED 120MM MORTAR SYSTEM



(U.S. Army photo by Sgt. Matthew Moelle)

ARMY EYES LASER-GUIDED MORTAR SYSTEM

3/6/17

The Army closed its initial solicitation phase for designs to create a next generation precision mortar in early 2017. The next generation precision mortar will allow for soldiers to put their rounds on target with extreme accuracy. The 120mm high explosive guided mortar, or HEGM program, is scheduled to replace the current precision-guided HE mortar, which is the accelerated precision mortar initiative (APMI).

The Army planned to award contracts for the development in late 2017 but no update has been shared regarding which companies have been selected to work on the project. The final HEGM solution will be selected through an open competition conducted in 2018. The HEGM will be an all-terrain, all-weather mortar that will be compatible with all US 120mm mortar weapons and fire-control systems in infantry, armoured, and Stryker brigade combat teams.



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