

Lightweight Counter Mortar Radar (LCMR)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

Identifies indirect fire threats by providing the ability to rapidly locate rockets, artillery, and mortar firing positions automatically by detecting and tracking the shell and backtracking to the weapon position. It provides observed fires (for friendly fires), will provide accurate “did hit” data of friendly fires, and will detect and template hostile locations.

DESCRIPTION

The AN/TPQ-50 Lightweight Counter Mortar Radar (LCMR) is a man-portable and HMMWV 1152A-mountable lightweight radar system used to locate rocket, artillery, and mortar Points of Origin (POO) and Points of Impact (POI) out to a range of 10Km. The radar accomplishes this by detecting and tracking the projectile then extrapolating the POI and POO to within 50 meters Circular Error Probability (CEP). The AN/TPQ-50 has a continuous 360-degree surveillance using an electronically scanned antenna. The radar can be rapidly deployed by two Soldiers. The AN/TPQ-50 sends a warning message to indicate an incoming round and is a critical sensor to the Counter Rocket Artillery and Mortar (C-RAM)

system of systems construct. The radar also is digitally interoperable with AFATDS and FAADC2.

SYSTEM INTERDEPENDENCIES

In this Publication

Counter-Rocket, Artillery, and Mortar (C-RAM)/Indirect Fire Protection Capability (IFPC)

PROGRAM STATUS

- **December 2011:** Milestone C Review; on track for mid-December review
- **September 2011:** First Unit Equipped
- Authority to Operate (ATO) received by PM on 10 May
- Army Interoperability Certificate (AIC) received by PM on 10 June
- Urgent Material Release (UMR) due to PM by 30 August

PROJECTED ACTIVITIES

- **June 2012:** Initial Operational Test & Evaluation (IOT&E)
- **Jan 2013:** On track to meet all requirements, Full-Rate Production Decision
- On track to meet all requirements
*One Year slip in the schedule for First Unit Equipped and Full-Rate Production Decision due to environmental testing improvements

ACQUISITION PHASE

Technology Development

Engineering and Manufacturing Development

Production and Deployment

Operations and Support

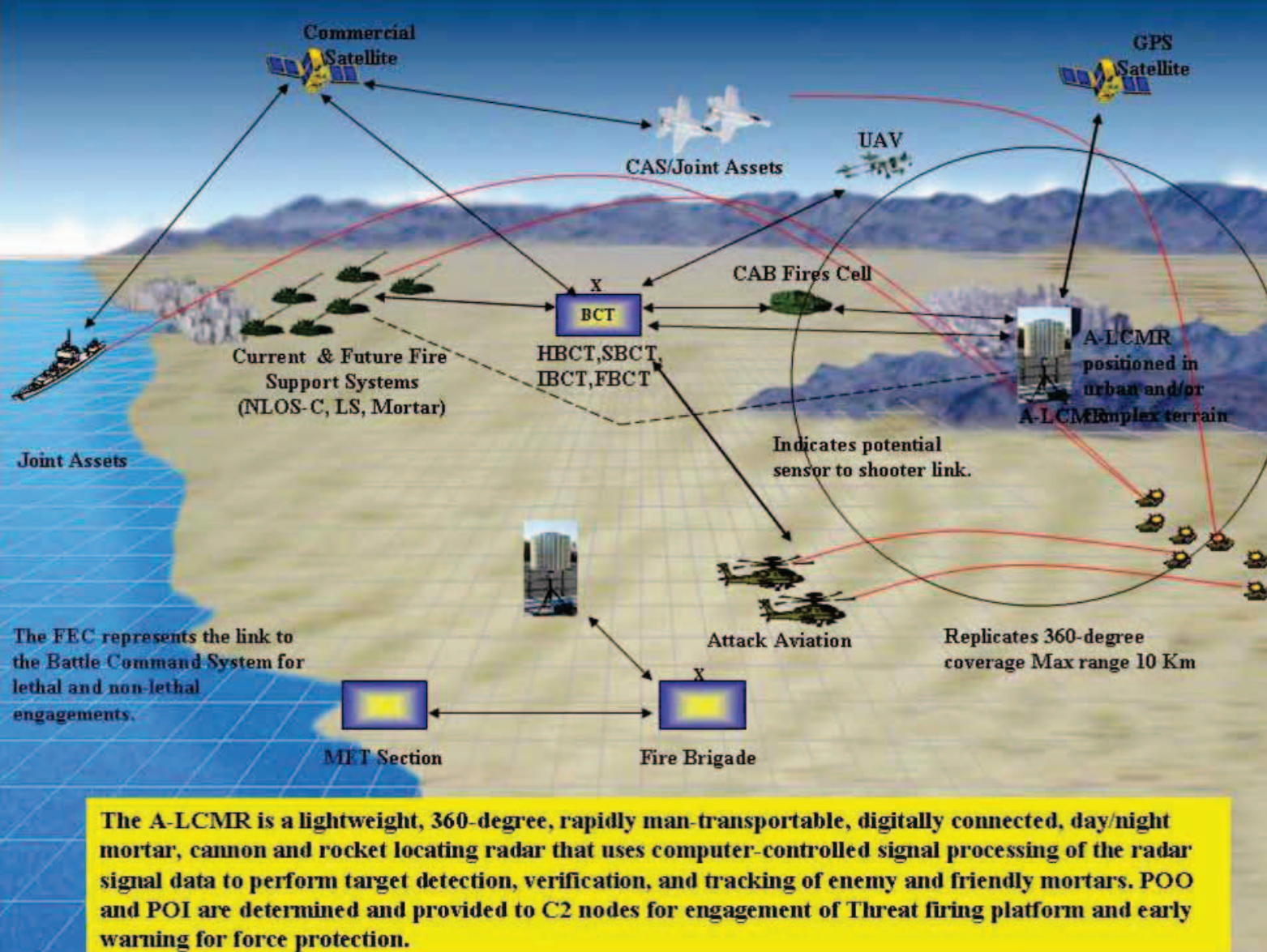
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FOREIGN MILITARY SALES

None

CONTRACTORS

- SRCTec (North Syracuse, NY)
- Syracuse Research Corporation (SRC) (Syracuse, NY) (statewide, MD)
- Yuma Proving Ground (Yuma, AZ)
- Tobyhanna Army Depot (Tobyhanna, PA)



The A-LCMR is a lightweight, 360-degree, rapidly man-transportable, digitally connected, day/night mortar, cannon and rocket locating radar that uses computer-controlled signal processing of the radar signal data to perform target detection, verification, and tracking of enemy and friendly mortars. POO and POI are determined and provided to C2 nodes for engagement of Threat firing platform and early warning for force protection.

