

Meteorological Measuring Set–Profiler (MMS–P)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance



MISSION

To provide real-time meteorological data for field artillery on demand over an extended battlespace.

DESCRIPTION

The AN/TMQ-52 Meteorological Measuring Set–Profiler (MMS–P) uses a suite of meteorological sensors, meteorological data from communications satellites, and an advanced weather model to provide highly accurate meteorological data for indirect fire, field artillery systems. The system uses common hardware, software, and operating systems and is housed in a command post platform shelter and transported on an M1152A High Mobility Multipurpose Wheeled Vehicle (HMMWV). Profiler measures and transmits meteorological conditions to indirect fire direction centers, such as wind speed, wind direction, temperature, pressure and humidity, rate of precipitation, visibility, cloud height, and cloud ceiling, all of which are necessary for precise targeting and terminal guidance of various munitions. Profiler uses this information to create a four-dimensional meteorological model

(height, width, depth, and time) that includes terrain effects. This new capability increases the lethality of all field artillery platforms such as the Multiple Launch Rocket System (MLRS), Paladin, and self-propelled or towed howitzers by increasing the probability of first-round hit, resulting in significant ammunition cost savings for the Army. The current Profiler provides meteorological coverage throughout a 60 kilometers radius, while the follow-on Block II variant extends coverage to 500 kilometers. For the first time, Army field artillery systems can apply meteorological data along the trajectory from the firing platform to the target area.

SYSTEM INTERDEPENDENCIES

Navy Operational Global Atmospheric Prediction System, Global Broadcast System

PROGRAM STATUS

- **2QFY07–Present:** Continued full-rate production and fielded the system to 41 Interim Brigade Combat Teams (IBCTs) and four fires brigades.

PROJECTED ACTIVITIES:

- **2QFY09–2QFY11:** Continue full-rate production of the current system and complete fielding to remaining Brigade Combat Teams and fires brigades; begin development of Profiler Block II configuration to reduce the system footprint and leverage technology and software advancements to achieve improvements in accuracy to eliminate the need for balloons and radiosondes.

ACQUISITION PHASE

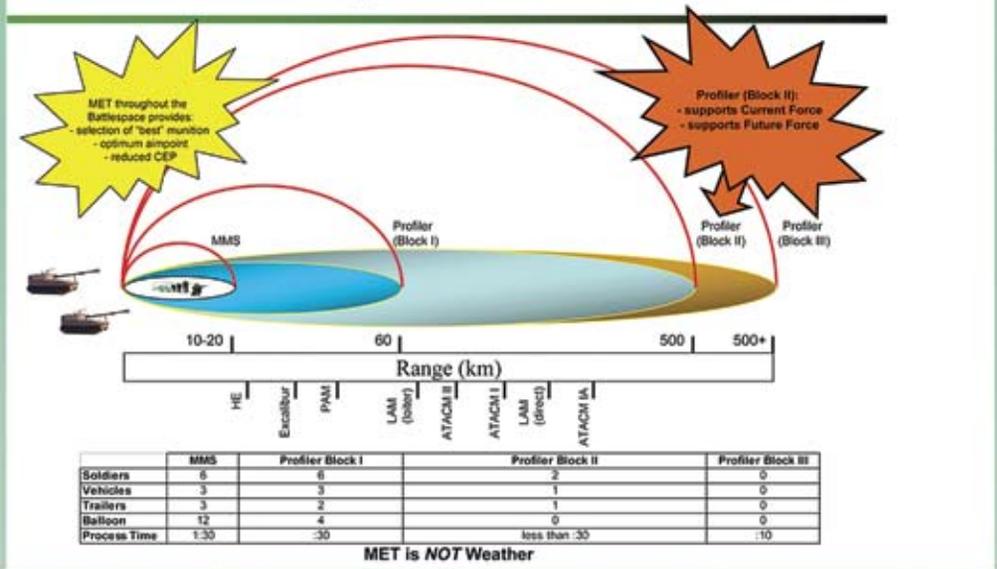
Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

Profiler Impact on Battlefield MET



Meteorological Measuring Set-Profiler (MMS-P)

FOREIGN MILITARY SALES

None

CONTRACTORS

Smiths Detection, Inc. (Edgewood, MD)
 Pennsylvania State University (University Park, PA)

