

# JAG — R Joint Air-to-Ground Missile-Medium Range



# JAGM-MR Lockheed Martin. Your Mission is Ours."

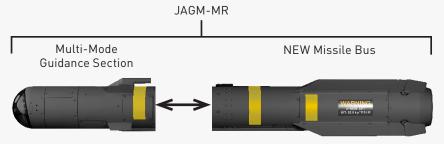
## Increasing Range and Sensor Options

The Joint Air-to-Ground Missile-Medium Range (JAGM-MR) is a planned product improvement to the in-production JAGM. To proactively meet customer needs, Lockheed Martin has undertaken this aggressive initiative, designed to increase the ground-launched range of JAGM, while maintaining the existing outer mold line dimensions of the missile.

JAGM-MR maintains the operational benefits of JAGM, while reaching ranges over 16 kilometers when ground launched, more than double the range of the fielded weapon. To ensure M299 Launcher compatibility, JAGM-MR retains the existing length and diameter of JAGM, while minimizing weight growth.

Responsive to the ever-growing need for increased capabilities to address emerging threats, while concurrently enhancing weapons delivery platform and crew survivability through increased stand-off, JAGM-MR provides that and more. A suitable upgrade to the HELLFIRE® and JAGM family of missiles, inclusive of the out-of-production Longbow missiles, JAGM-MR provides heightened capabilities to aviation platforms, surface platforms and ground platforms. Similar to JAGM, JAGM-MR affords a multiple target engagement capability, near simultaneously, during day/night and in adverse weather to all delivery platforms.

JAGM-MR encompasses an upgraded missile bus and multi-mode guidance section, offering enhanced performance on tomorrow's battlefield. Proven throughout multiple flight tests, the weapon's multi-mode seeker provides an improved semi-active laser (SAL) sensor for precision-strike and a fire-and-forget millimeter wave (MMW) radar for moving targets in all-weather conditions. Additionally, JAGM-MR incorporates a near infrared (NIR) sensor into the multi-mode seeker providing further operational enhancements and compounding adversary countermeasures challenges. The seeker is architected to utilize specific operator-selected sensors,



The JAGM-MR missile bus incorporates the new electro-mechanical control actuation system and a minimum smoke, boost-sustain solid rocket motor for improved kinematics and maneuverability. JAGM-MR affords ground/surface launch ranges >16km when static fired and obtainable ranges well in excess of 16km when delivered at altitude and/or in forward flight.

or all sensors in combinations simultaneously to provide the optimum solution to prosecute the target. Unlike other weapons configured with either single or multiple sensors, JAGM optimizes target engagement based on available sensor information, and remains capable of target prosecution should an anomaly occur with one of the sensors.

JAGM is built on active production lines by the same team that has produced more than 100,000 HELLFIRE II® and LONGBOW missiles with a reliability rate exceeding 97%

#### **FEATURES**

- SAL sensor provides precision-point accuracy
- MMW/NIR sensor provides improved capability against countermeasures, enhances accuracy in all weather types and versus moving targets while providing aimpoint refinement
- Updated propulsion and control sections provide JAGM extended range and improved maneuverability
- Fire-and-forget capability supports rapid-fire launches at multiple targets and increases survivability
- Lock-on before and lock-on after launch maximizes operational engagement and flexibility while minimizing collateral damage
- A modular seeker design independent of the missile bus offers accelerated response to future requirements
- Operator-selectable fuze options provides enhanced lethality across a wide target spectrum, supporting secondary and tertiary mission tasking
- Compatible with all JAGM user platforms, as well as HF/Longbow platforms with software updates

### **SPECIFICATIONS**

RANGE: 00.3 to 9.9+ miles

(0.5 to 16+ kilometers)

GUIDANCE: Multi-Mode SAL/MMW

WARHEAD: Multi purpose

WEIGHT: 122 lbs. (53.3 kg)

LENGTH: 69.2 in (175.6 cm)

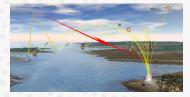
DIAMETER: 7 in [17.8 cm]



JAGM-MR is optimized for multi-domain operations.



In November 2021, Lockheed Martin successfully completed the first ambient static fire testing for the JAGM-MR solid rocket motor.



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