



WB GROUP 

Loitering Munitions System

WARMATE 2

WARMATE 2 is a new and upgraded version of one of WB GROUP's flagship products – loitering munitions WARMATE. The much bigger and mightier WARMATE 2 adds more impact power and flight endurance to the precision and swiftness of WARMATE. A combat Air Vehicle (AV) providing a highly accurate strike capability with an anti-personal, anti-tank or thermobaric warhead, is capable of changing the course of the battle and destroying targets without human intervention.

The combat Air Vehicle (AV) provides a highly accurate strike capability with an anti-personal, anti-tank or thermobaric warhead. The addition of a daylight and thermal camera (uncooled IR), integrated in the fuselage allows for automated targeting and the assessment of a target before finalizing a strike. The AV is catapult launched and ruggedized, vehicle mounted ground station controls the operation of the air vehicle. Each WARMATE 2 AV is stored and transported in dedicated hard case, which allows to charge onboard batteries without pulling AV out.

WARMATE 2 is designed to be integrated with the vehicle, therefore all ground segment devices are optimized for integration and operation on ground vehicle, all additional equipment for transportation, launch and communications devices.

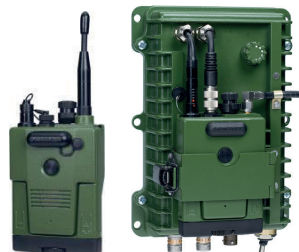
Loitering munitions system WARMATE 2 system consists of items presented on the figure below. Given quantities relate to the single set. Product configuration to be updated before signing the contract.



FONET intercom system components



WARMATE 2 vehicle mounted GCS



RADMOR personal radio system components

WARMATE 2 – Ground segment

- WARMATE 2 is designed to be integrated with the vehicle, therefore all ground segment devices are optimized for integration and operation on ground vehicle.
- The ground segment comprises a ground control station (GCS) that is a ruggedized, touch screen computer that allows the user to control the AV and view visual data, and a data transceiver, which is a digital and bidirectional, ground data terminal (GDT), secured datalink that allows for the transmission of flight controls from the GCS to the AV.
- Users can easily set and modify flight plans using the user-friendly software installed on the GCS. Real-time data from the AV is displayed on the same screen as a map detailing the location, speed, and altitude of the AV.
- One ground vehicle contains 2 GCS devices. First one is for the operator to control the AV, second is for commander to supervise ongoing operation.
- The Air Vehicle takes off from the vehicle mounted, elastomer launcher.
- GDT is mounted on the top of foldable, pneumatic mast to extend data link capability.
- The Ground Segment contains also FONET intercom system and RADMOR personal radios to provide effective communication between all crew members either inside and outside the ground vehicle.
- Additional equipment such as AV charger, hard cases for warheads and for GDT are also provided as a ground segment components.

The General Technical Specification of LMS WARMATE 2

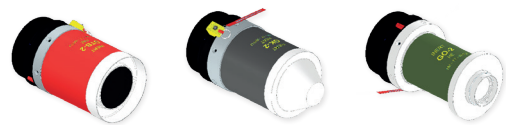
Take-off method	Elastomer launcher
Operation radius	20 km LOS
Ceiling	500 m AGL, 3000 m AMSL
Operation altitude	200 m AGL
Flight endurance	120 min
Maximum Take-off weight	30 kg
Maximum velocity (IAS)	150 km/h
Hit accuracy	2 m (CEP)
Warhead selection	HE / HEAT / FAE / INERT
Fully automatic flight control (navigation via the waypoint on the digital map)	
Automatic video tracker to support the target aiming	
EO and IR (optional) cameras integrated in the fuselage	



WARMATE 2 Vehicle ready to operation

WARMATE 2 – The Warheads

The warheads are the effectors of WARMATE 2 system. Variety of different effects can be achieved depending on the warhead type used.



The LMS WARMATE 2 Warheads

Parameter	GO-2 HE	GTB-2 FAE	GK-2 HEAT	GK-2 HEAT-TR
Radius	140 mm	140 mm	140 mm	140 mm
Height	276 mm	254 mm	305 mm	305 mm
Total Weight	4800 g	4800 g	4800 g	4800 g
Explosive Material Type	Composition B	TBX	Octogen phlegmatized HV-5	—
Weight of Explosive Material	1000 g	3700 g	1650 g	—
Warhead Type	High Explosive	Thermobaric	High Explosive Anti-Tank	Training, INERT
Target Type	Infantry, shelters, bunkers, light vehicles, personnel	Infantry, shelters, bunkers, personnel	Armored vehicles, tank	—
Destructive Radius	40 m	40 m	400 mm RHA	—
Fuse Type	Electronic	Electronic	Electronic	Electronic - Training
Impact Type	Fragmentation	Implosion	Cumulative	—
Structural Characteristics	Carbon fiber composite/ Aluminum	Carbon fiber composite/ Aluminum	Carbon fiber composite/ Aluminum	Carbon fiber composite/ Aluminum
Safety Type	SA (Save-Arm)	SA (Save-Arm)	SA (Save-Arm)	Training SA (Save-Arm)
Power	12 VDC	12 VDC	12 VDC	12 VDC



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