

22 February 2021

Hanwha Defense showcases unmanned defense solutions at IDEX 2021

Hanwha Defense, a leading defense company in South Korea, is displaying up-to-date unmanned defense systems during the International Defence Exhibition and Conference (IDEX) that opened on February 21 for a five-day run.

During the biennial arms trade show in Abu Dhabi, the United Arab Emirates, the business arm of Hanwha Group unveiled the prototype of the Multi-Purpose Unmanned Ground Vehicle, or MPUGV, for the first time at an exhibition overseas.

The development of MPUGV was completed in 2019 as part of a state project aimed at developing unmanned robotics to support infantry troops in different combat situations.



The 4x4 vehicle operates on electricity and can move at a top speed of 30 km/h on paved roads. On the battlefield, the 1.5-ton vehicle is operated either remotely or autonomously to carry out various missions, such as surveillance, logistics transport, evacuation of casualties and combat engagement.

The vehicle has a payload capacity of 200 kg and can conduct operations for 14 hours on a single charge. With a range extender, the operating time could increase to up to 72 hours.

The MPUGV is the first of its kind in the country that has passed field tests and evaluations. During the Korean Army's pilot operations of the robotic combat vehicle from 2019 to 2020, the vehicle successfully demonstrated its intelligent mission capability, including follow-me; self-driving; waypoint navigation; obstacle avoidance; twin-beds module for casualties; and communication relay using a drone.

The vehicle also features a high-end remote-controlled weapon station that can lock on to targets automatically using acoustic sensors to determine the source of gunfire during the confusion of combat.

An upgrade variant of the MPUGV is scheduled to debut as early as the third quarter of this year. The new version is a 6x6 vehicle equipped with improved performances in terms of payload capacity, maximum speeds, operational range, survivability, etc.

The 6x6 MPUGV is a modular vehicle providing multiple functions to meet diverse mission requirements, such as load carriage, chemical and mine detection, dual-weapon remote controlled weapon station (RCWS), and reconnaissance, surveillance and target acquisition.

The Hanwha Defense-built light-weight RCWS also made its international debut during the UAE defense trade show.

The 130kg-class variant was developed to be integrated to tanks, armored vehicles and light-tactical vehicles, and can be equipped with either the K6 or K4 machine gun.

Hanwha Defense is the only company in South Korea to develop and produce RCWS of its own and were awarded contracts to build these for the high-speed patrol vessels and the amphibious assault vehicles operated by the South Korean Navy and Marine Corps respectively.

Among other Hanwha Defense products to draw the attention of the global defense industry are the K9 Self-Propelled Howitzer; the K10 Ammunition

Resupply Vehicle; the REDBACK Infantry Fighting Vehicle; the TIGON 6x6 wheeled armored vehicle; and, the Hybrid BIHO short-range air-defense system.

Variants of the 155mm/52-calibre K9 SPH are operated by six countries – Turkey, Poland, Finland, India, Norway and Estonia, while the South Korean armed forces have completed the deployment of the advanced artillery systems in 2020 with plans ahead to improve the artillery’s automation and firing range.

In September 2020, Hanwha Defense Australia was selected with the K9 as the preferred supplier for the Australian Army’s LAND 8116 self-propelled howitzer acquisition program. Under the project, the Australian Army is set to acquire 30 K9 “Huntsman” howitzers, along with K10 Armored Ammunition Resupply Vehicles.

REDBACK is one of the final two contenders for the Commonwealth of Australia’s high-profile LAND 400 Phase 3 project aimed at introducing 450 future-oriented tracked Infantry Fighting Vehicles.

TIGON is a new type of armored wheeled vehicle developed mainly for overseas markets. The vehicle features independent suspension and a maximum speed of 100km/h. It weighs 21 tons and can carry 11 troops. The South Korean Army is operating the armored personal carriers in a pilot program to verify its field performances.

The Hybrid BIHO gun and missile air defense system is considered one of the most effective short-range anti-aircraft systems, which is capable of intercepting low-altitude infiltrating aerial targets, including unmanned aerial vehicles as well as aircraft and helicopters.

Fitted with an advanced surveillance radar, the air-defense artillery can engage targets both with the 30mm twin machine gun and surface-to-air missiles.

“Hanwha Defense has numerous defense products meeting the requirements in the Middle Eastern and African markets,” said An Byung-chul, head of Hanwha Defense International. “I’m sure we can offer optimal defense solutions to the customers in the region to expand our global presence.”

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