

# INNOVATION AND TECHNOLOGY



INNOVATION DRIVES FORWARD.

#### THIS IS OSHKOSH DEFENSE.

At Oshkosh Defense, we stand behind those who dedicate their lives to protecting others. Every day we strive to meet or exceed our customers' ever-changing needs with next generation defense technologies and advanced systems. We operate with unparalleled commitment to those who depend on our products and services worldwide to perform their missions.



## Where ideas become solutions.

At Oshkosh Defense, we assemble some of the greatest engineering minds in the industry to collaborate with military personnel to understand and analyze the problems they face. We think about all the challenges and explore all the possibilities. Then we create solutions by blending the art of invention and the science of new product development. Solutions that directly respond to the needs of those who serve – like extreme off-road mobility, expeditionary power generation, integrated on-board diagnostics and autonomous vehicle operability.



# Turning ideas into real get-there, get-back solutions. These are battle-proven advanced technologies designed to complete missions and protect lives.

#### **TAK-4® Independent Suspension System**

The TAK-4® independent suspension system is an integrated driveline solution that provides maximum performance over, above and beyond anything else. Engineered for the most extreme conditions, TAK-4 independent suspension takes maneuverability to unparalleled levels by increasing vehicle mobility, ride quality, off-road speeds and load-carrying capacity as well as lowering life-cycle costs. Available for light-, medium- and heavy-duty vehicles, TAK-4 suspension has been proven on the PLS A1, MTVR, LVSR, legacy MRAP, RG31A3 SOCOM MRAP, RG33 MRAP and COUGAR MRAP – providing maximum performance on every mission.

#### Next Generation TAK-4® Independent Suspension System\*

Every component of the next generation TAK-4<sup>®</sup> independent suspension system is optimized to take mobility, versatility and safety to even greater heights. It's lighter and more reactive than its predecessor, but it's just as durable and reliable. Oshkosh-developed shock absorbers increase reaction, high-performance disc brakes maximize braking power and a full 20 inches of wheel clearance allows extreme maneuverability while distancing occupants from underbelly explosions. Every part works in sync to assure optimal performance.



\* PATENT PENDING



## **ADVANCED TECHNOLOGY**



#### **ProPulse® Hybrid Diesel-Electric System With Export Power**

A tailored engine control strategy in the Oshkosh Defense® ProPulse® hybrid diesel-electric system improves fuel economy up to 20 percent and reduces overall life-cycle costs. It can also deliver up to 120 kW of military-grade export power, enough to power an entire airfield or hospital. Already proven effective on the Oshkosh HEMTT A3 and MTVR, ProPulse technology is unmatched in performance – powering heavy-duty vehicles through the most difficult terrain while providing efficient, effective solutions to assure mission success.

#### TerraMax<sup>™</sup> Unmanned Ground Vehicle Technology

TerraMax<sup>™</sup> unmanned ground vehicle technology integrates high-power computers, state-of-the-art sensing systems, artificial intelligence and drive-by-wire technology for complete robotic functionality. It can run with no driver and limited supervision. It's available in kit form, so the original utility of the vehicle, crew comfort and payload capacity remain unhindered. And, depending on strategic field objectives, TerraMax technology is capable of a full range of operability – manned, tele-op, leaderfollower and full autonomy.



### **ADVANCED TECHNOLOGY**

#### Command Zone<sup>™</sup> Integrated Control And Diagnostics System

The Command Zone<sup>™</sup> integrated diagnostics system is a computer-controlled electronics technology that operates and diagnoses all major vehicle networks. The backbone of the Command Zone system is advanced multiplexing technology that allows vehicle components to work in concert, streamlining diagnostics and troubleshooting efficiencies. Delivering both local and remote diagnostics, the Command Zone system allows real-time access to critical vehicle information. Performance feedback is quick, accurate and reliable, so troubleshooting time is reduced, vehicle servicing is easier, and overall vehicle reliability and performance are enhanced.

#### **REMM<sup>™</sup> Renewable Energy Mission Module\***

A uniquely engineered wind turbine with integrated solar modules, REMM<sup>™</sup> renewable energy mission units generate power for forward operating bases and remote locations. Optimized for low to medium velocity winds, the REMM unit is a completely self-contained energy system with a configuration that retracts easily for storm protection or rapid re-deployment. A REMM unit can be delivered with the Oshkosh Defense<sup>®</sup> HEMTT A3 equipped with a Load Handling System. With its export power capabilities, the HEMTT A3 can augment the natural energy resources of the REMM unit, and together, the two can provide power for extended periods of time without resupply.



\*UNDER LICENSE FROM NATURAL POWER CONCEPTS

Solving the defense industry's most challenging issues by designing and producing best-in-class defense technologies, vehicles and mobility systems. Oshkosh Defense® innovation and technology.





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