

Installation of Under Armor Auxiliary Power Unit Finally Begins on M1A2 SEP Tanks

A Fort Hood tank battalion, 3-67 Armor, is receiving the first examples of a long-awaited auxiliary power unit that provides electrical and hydraulic power while the tank's main engine is turned off. The Under Armor Auxiliary Power Unit (UAAPU) provides electrical and hydraulic power, cutting fuel use and wear on the main power plant.

Fielding of the unit had been delayed because of funding problems, but the first four units were delivered earlier this year and there are plans to install the UAAPUs on 966 of the M1A2 SEP tanks.

The UAAPU is installed in the left rear of the tank's hull, replacing a 55-gallon fuel cell. It is operated from the driver's compartment and draws its fuel from the tank's main fuel system.

The 590-pound unit includes a turbine engine and generator set that provides 6kW of electrical power to charge the tank's main batteries. Previously, when a tank was stopped for a long period, the crew either shut down the main engine and operated on batteries, or kept the main engine going, con-

suming large amounts of fuel. The UAAPU reduces vehicle fuel consumption by approximately 8.5 gallons per hour. It also reduces the vehicle's thermal signature, compared to operating the main engine.

The Fort Hood unit that received the initial conversions used the tanks during the 4th ID's Division Capstone Exercise at the National Training Center, and they were declared a resounding success.

Veterans say auxiliary power units on tanks are not a new idea, and were installed on some tanks as far back as World War II, when they were called "pony engines." But these were usually crude add-ons that operated outside the tank's armor envelope. In contrast, the new unit, as the name suggests, is integrated into, and protected by, the M1A2's armored hull.



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