American Ordnance LLC, operator of the Iowa and Milan Army Ammunition Plants, produces the M231 & M232A1 Modular Artillery Charge System (MACS) for the U.S. Army and other State Department approved customers.

**USE:** MACS is a replacement system for 155mm propelling charges offering simplified logistics and reducing environmental impact at a lower cost. The MACS, a modular rigid propelling charge system, was developed for use in all currently fielded 155mm howitzer systems, both self-propelled and towed.

**DESCRIPTION:** The MACS is based on the classical unicharge design, i.e., bi-directional center core ignition, granular propellant contained in a rigid combustible case, etc. The design features allow MACS modules to be both manually and automatically handled, and to meet future artillery needs.