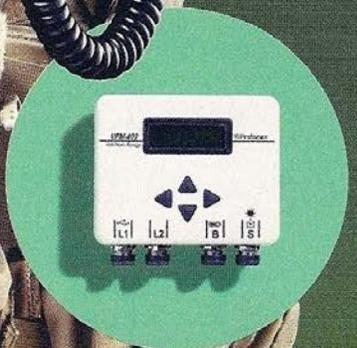


EVERLASTING POWER FOR SOLDIERS AT WAR

WAR IS HELL—powered by batteries and bottled water. The average grunt humps about 50 pounds of that stuff for missions of just a few days. Run out and you're screwed. But the Pentagon has a fix: a supersuit, of course. The Marine Austere Patrolling System will generate power and purify water on the go; if evaluation exercises in Bridgeport, California, go well, the tactical vest could roll out in the next few years. Total weight: about 6 pounds. "I don't like to use the word *green*," says Major Sean Sadlier, a project officer with the Marine Corps Expeditionary Energy Office. "This is about combat effectiveness." Here's how it works.

A 9- by 14-inch solar array in a transparent back pocket can generate 30 to 100 watt-hours a day. Each panel is ultrathin and flexible and will continue to charge even if a diode is shot or damaged.

A snap-in water filter attaches to a 3-liter hydration pouch. It operates with suction, clearing water of harmful viruses and bacteria as it is consumed.



A 150-watt-hour rechargeable battery enables marines to pool power or redistribute

A power meter the size of an Altoids tin displays the charge level of the main battery.