

## Mine Countermeasures... through the Beach and Beyond

### DISCUSSION

Once ashore, naval expeditionary forces must be capable of detecting, breaching, clearing, proofing, and marking mines and obstacles, as well as disseminating mine data. The Marine Corps' current inventory of MCM systems includes the AN/PSS-12 Mine Detector (a metal detector) and explosive breaching systems (consisting of Assault Amphibian Vehicles equipped with Mk154 Triple-Shot Line Charges, Mk155 Line Charges, and Anti-Personnel Obstacle Breaching System). The inventory also contains mechanical breaching, clearing, and proofing systems, specifically the M1 tank with Track-Width Mine Plow and the Armored D-7 Dozer. Overall, these systems do not meet the detection, speed, and responsiveness requirements of the modern battlefield.

Three acquisition programs promise to significantly improve Marine Corps MCM capabilities:

The **Advanced Mine Detector (AMD)** will combine multiple sensing technologies to detect explosives in anti-personnel and anti-tank mines, a key capability due to the worldwide proliferation of low- and non-metallic mines. Initial operational capability is scheduled for FY 2008 and full operational capability for FY 2009.

The **Coastal Battlefield Reconnaissance and Analysis (COBRA) System** is a remote, multi-spectral minefield sensor that may be flown on manned or unmanned aviation platforms. Initially, COBRA will offer standoff detection of surface minefields and obstacles and provide beach and inland area intelligence data. After subsequent develop-

ment, COBRA will be enhanced to detect mines and obstacles in the surf zone and beyond the beach as well.

The **Assault Breacher Vehicle (ABV)** will be a single-platform, minefield breaching, clearing, proofing, and marking system that possesses the same speed and mobility as modern mechanized forces. Combining two Mk155 Line Charges, a Full-Width Mine Plow, and a breached lane marking system on an M1 tank chassis, the ABV will offer deliberate and in-stride breaching capabilities. Initial operational capability is scheduled for FY 2006 and full operational capability for FY 2007.



### MARINE CORPS POSITION

Current Marine Corps MCM systems do not provide naval expeditionary force commanders with adequate capability to achieve and maintain momentum in a full-spectrum anti-access environment. The Marine Corps will shortly implement a MCM Master Plan designed to fix mine countermeasure deficiencies in the Marine Corps.