



## COBRA

# Coastal Battlefield Reconnaissance and Analysis



The mission of the AN/DVS-1 Coastal Battlefield Reconnaissance Analysis (COBRA) system is to conduct unmanned aerial tactical reconnaissance in the littoral battlespace for detection and localization of minefields and obstacles in the surf zone, beach zone, and beach exit zone prior to an amphibious assault. The COBRA airborne payload is carried on the MQ-8 Fire Scout unmanned aerial system. This allows operators and other personnel to remain at a safe distance from the mines and obstacles as well as enemy direct and indirect fire. COBRA is embarked off the Littoral Combat Ship as part of the Mine Countermeasures Mission Package. The system can deploy from shore or other aviation-capable platforms as required to support fleet operations.

System IOC FY2017

## Capabilities

- Real-time onboard processing
- Beach Zone (BZ) minefield detection
- Surf Zone (SZ) minefield detection
- Very Shallow Water (VSW) mine detection
- Drifting mine detection & tracking
- Bathymetry



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# Remotely locate and detect mines and obstacles in the Beach and Surf Zones

With the award of the SBIR Phase III LRIP contract, in 2011, Areté became the COBRA Prime Integrator. Initial Operational Test & Evaluation (IOT&E) was completed in FY2017-FY2018, FY2017 deemed Initial Operational Capability (IOC) in FY2017. COTF concluded the COBRA Block I to be operationally effective, operationally suitable, and cyber-security survivable. The program has received its IOC, RFT, and MSD milestones to date.

The COBRA Block I system is comprised of two airborne payloads, the post-mission analysis (PMA) station, and the tactical control system (TCS) segment for the MQ-8 Fire Scout mission control system. The Mission Control System (MCS), using the Tactical Control Software (TCS), is used to plan the flight tracks required for the COBRA execution and to monitor system status.



<p><b>MCMBZ - Beach Zone</b> <i>(existing capability)</i></p>	<p><b>MCMSZ - Surf Zone</b> <i>(new capability)</i></p>	<p><b>NSMD – VSW/SW</b> <i>(new capability)</i></p>	<p><b>TLS – Littoral Zone</b> <i>(new capability)</i></p>
<p><b>Mine Counter Measures (Beach Zone)</b> Detects patterned/scattered minefields Detects obstacles Nominal Profile: 3000' altitude, 85 knots</p>	<p><b>Mine Counter Measures (Surf Zone)</b> Detects mines in surf Nominal Profile: 3000' altitude, 65 knots</p>	<p><b>Near Surface Mine Detection</b> Detects mines in shallow water Nominal Profile: 3000' altitude, 65 knots</p>	<p><b>Tactical Littoral Sensing</b> Bathymetry Measurements Nominal Profile: 3000' altitude, 10000' standoff distance, orbit @ 85 knots</p>
<p><b>Beach Zone</b></p>	<p><b>Surf Zone</b></p>	<p><b>Very Shallow Water Zone</b></p>	<p><b>Bathymetry</b></p>



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