



MCQ INC.

OMNISENSE® REMOTE NETWORKED SENSOR SYSTEM



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Topic Number:
OSD00-SSW04
(ONR)

SBIR Investment: \$849K
Project Revenue: \$38.6M

McQ Inc.

1551 Forbes St.
Fredericksburg, VA 22405
(866) 373-2374
www.mcqinc.com
jmcquiddy@mcqinc.com
John McQuiddy

OmniSense® provides enhanced capabilities to find and attack insurgents

About the Technology

McQ's OmniSense® is a fully networked satellite linked persistent surveillance system that integrates advanced sensors in the field to a powerful map based user interface. The user interface visualizes the operational situation and provides command and control of the sensors over the same network used by the sensors to report the detection of targets. The persistent surveillance sensors are currently deployed, in quantity, to warfighting areas to monitor roads, borders, and areas of interest for insurgent activities. Developed for the Navy, the advanced OmniSense® Visually Enhanced Tracking Sensor (OVETS) provides automated target detection and sensor imaging. The detected targets are tracked with either a daytime color camera or an uncooled nighttime infrared camera so the user sees the target as it is detected.

The Sensor Information Management System (SIMS), developed for the Air Force, produced a Common Data Interchange Format (CDIF) data structure, which is the “glue” of the user interface and visualization technology, and ties the field deployed sensors and the “back end” user together via a network architecture. The network architecture is compatible with the military Non-classified Internet Protocol Router Network and Secret Protocol Network versions of the commercial networks. The OVETS and SIMS combined to produce a highly successful deployed capability to detect and locate insurgent activities in Iraq and Afghanistan. The CDIF data structure has been adopted by Special Operations Command, Defence Intelligence Agency, CENTCOM, and INSCOM as the required data layer for all unattended ground sensors in the current Middle East conflict areas.

Military and Commercial Significance

OVETS collects thermal infrared video images captured by a network of sensors spread across a region, and fuses the data to create a comprehensive picture of the battlefield. The system allows operators a 360 degree, 24 hours situational awareness and significantly increased operational effectiveness, and revolutionizes the availability of battlefield information.

About the Company

McQ Inc. is a high technology leader in remote surveillance, security, and environmental monitoring products that offer complete ‘concept to product’ R&D capabilities. For more than two decades the company has delivered state of the art surveillance and remote sensor systems to commercial, industrial, and government clients. The success of the OmniSense® system has allowed McQ to expand into other DoD programs. Production contracts resulting from McQ's SBIR efforts enabled the company to hire new personnel and to reinvest money into product improvements.

APPLICATIONS

- ▶ MARCOR: Tactical Remote Sensor System Program – New Marine Corps Battlefield Sensor System
- ▶ Army: Army Research Lab, Intelligence and Security Command, Ft. Belvoir - Persistent Surveillance System used in Iraq and Afghanistan to find and attack insurgents
- ▶ Special Operations Command: Unattended Ground Sensors Program – The OmniSense® User Interface is used by SOCOM for all UGS reporting in CENTCOM's Area of Responsibility