

## Recurring Military and Technological Abbreviations and Acronyms

AESA - Active Electronically Scanned Array  
 AEV - Armoured Engineer Vehicle  
 AFV - Armoured Fighting Vehicle  
 APC - Armoured Personnel Carrier  
 ASW - Anti-Submarine Warfare  
 ATGM - Anti-Tank Guided Missile  
 AUV - Autonomous Underwater Vehicle  
 C2 - Command and Control  
 C4 - C2, Communications and Computers  
 C4I - C4 and Information  
 CAS - Close Air Support  
 CASEVAC - Casualty Evacuation  
 CBRNE - Chemical, Biological, Radiological, Nuclear, and Explosive  
 COIN - Counterinsurgency  
 COTS - Commercial Off The Shelf  
 EFP - Explosively Formed Penetrator  
 EO - Electro-Optical  
 FIBUA - Fighting in Built Up Area  
 FLIR - Forward Looking Infra-Red  
 FMS - Foreign Military Sale  
 HALE - High Altitude Long Endurance  
 HAZMAT - Hazardous Materials  
 HMMWV - High Mobility Multipurpose Wheeled Vehicle  
 I2 - Image Intensified  
 IDF - Israel Defense Forces  
 IED - Improvised Explosive Device  
 ICV - Infantry Carrier Vehicle  
 IFF - Identification-Friend-or-Foe  
 IFV - Infantry Fighting Vehicle  
 IOC - Initial Operational Capability  
 IR - Infra Red  
 ISR - Intelligence, Surveillance and Reconnaissance  
 M-ATV - MRAP All-Terrain Vehicle  
 MALE - Medium Altitude Long Endurance  
 MANPADS - Man-Portable Air-Defence Systems  
 MBT - Main Battle Tank  
 MEDEVAC - Medical Evacuation  
 MOTS - Military Off The Shelf  
 MOUT - Military Operations in Urban Terrain  
 MRAP - Mine Resistant Ambush Protected  
 OEF - Operation „Enduring Freedom“  
 OIF - Operation „Iraqi Freedom“  
 PRR - Personal Role Radio  
 R&D - Research and Development  
 ROV - Remotely Operated Vehicle  
 RPA - Remotely Piloted Aircraft  
 RPG - Rocket Propelled Grenade  
 SINGGARS - Single Channel Ground and Airborne Radio System  
 STOL - Short Take-Off and Landing  
 UAS - Unmanned Air System  
 UAV - Unmanned Air Vehicle  
 UGV - Unmanned Ground Vehicle  
 UOR - Urgent Operational Requirement  
 USV - Unmanned Surface Vehicle  
 UUV - Unmanned Underwater Vehicle  
 VTOL - Vertical Take-Off and Landing

## SFC Energy Launches New EMILY 3000 for Vehicle Based Defence Applications

On the occasion of SOFIC 2013, **SFC Energy** has launched the new EMILY 3000 fuel cell generator for vehicle based defence applications. EMILY 3000 was developed based upon the successful application experience with SFC Energy's fully fielded EMILY 2200 fuel cell generator. It provides another power increase of 35% to a maximum of 125W nominal power, representing a charging capacity of approximately 3,000W hours per day. EMILY 3000 implements user experience and requests and features advanced power management for even more application flexibility. Like its predecessor, EMILY 3000 has been qualified according to Mil Std. and VG97010-2 in official military tests. EMILY 3000 has the same size, form factor and nearly the same weight as - EMILY 2200. The new fuel cell generator will replace EMILY 2200 effective end of 2013.

EMILY 3000's most prominent feature is its new charging flexibility. In addition to conventional batteries, the fully ruggedised fuel cell generator also charges modern lithium ion and lithium polymer batteries. It enables a broad range of important defence and security



Like all SFC fuel cell generators EMILY 3000 is silent, completely weather-independent and maintenance free, providing ultimate off-grid power reliability and convenience on and off the vehicle. In operation, it produces no harmful emissions, no detectable vibration or heat, which makes it an ideal power solution in covert and tactical power supply scenarios. Use of the fuel cell generator enables long system autonomy away from the grid in any climate or terrain. (Photo: SFC Energy)

## Primordial Secures Air Force Contract to Develop Immersive Surveillance System

Primordial has received \$848,791 in Air Force Research Laboratory (AFRL) Small Business Innovation Research (SBIR) contracts on 3 May to develop a multi-camera immersive surveillance system called TENTACLE. TENTACLE fuses sensor feeds from fixed cameras, UAVs, UGVs, and manned vehicles into a single 3D display that enables one analyst to effectively monitor dozens of cameras. TENTACLE's 3D display is comprised of imagery, terrain, buildings, and avatars representing entities such as people and vehicles.

TENTACLE supports archive queries and user-configured alerts; and also supports extracting meta-data (e.g. person versus vehicle,

upper colour, and lower colour), analysing behaviour (e.g. crossed tripwire or abandoned bag), and performing real-time queries (e.g. highlight people wearing red shirts). For the effort, Primordial teamed with **intuVision**, **All Hazards Management (AHM)**, and Carnegie Mellon University (CMU).

„This is an exciting and innovative project that enables us to further develop our image and video analysis algorithms,“ said Primordial's President, **Randy Milbert** to MT.

„Analysing UAV video is a particularly challenging and rewarding. We hope to ultimately provide tools that increase analyst effectiveness and decrease incident response times.“

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