

Expeditionary Energy Concepts (E2C) 2015



Formerly known as Experimental Forward Operating Base (ExFOB)

WHAT:

- Once a year, the Marine Corps invites industry to the Expeditionary Energy Concepts (E2C) technology demonstration (formerly ExFOB) to demonstrate commercial technologies with potential to address current Marine Corps energy, water, and waste capability gaps.
- The Marine Corps recently released a Request for Information (RFI) for E2C 2015 to identify energy technologies that will reduce fuel and battery resupply requirements for small unit distributed operations.

WHEN / WHERE:

- 23-25 June 2015
- Marine Corps Base Camp Lejeune, N.C.

TECHNOLOGY FOCUS AREAS:

- The Marine Corps is interested in technologies that meet or exceed the following specifications:

Hybrid/Electric ATV



- Gross vehicle weight $\leq 7,800$ lbs. (incl. crew, payload)
- Transportable via MV-22
- 300+ mile range
- Compatible w/ military fuels (JP-8, JP-5, F-24)

Batteries / Storage



- Rechargeable
- Energy density exceeds that of existing batteries:
 - BB-2590
 - Conformal
 - 6T (vehicle battery)
 - Battery for small hybrid systems such as GREENS

Fuel Cells (≤ 10 kW)



- Power output target = 3kW
- Operate on safe solid or liquid fuel (zinc, aluminum, JP-8, alternative fuels, etc.)
- Transportable via light tactical trailer
- Fuel savings over 3kW gen-set (~24% efficiency)

ABOUT E2C:

- Created by the Commandant in 2009, E2C (formerly ExFOB) brings together stakeholders from across the Marine Corps requirements, acquisition, and technology development communities in a dynamic process to quickly evaluate and accelerate fielding of technologies that reduce battlefield energy and water requirements and extend the operational reach of the Marine Corps.
- E2C is not a tradeshow. During the week-long demonstration, a team of engineers will collect data on system performance and Marine operators will provide qualitative feedback on what they see. Following the demonstration, promising technologies may be evaluated in a controlled lab environment and then put into the hands of Marines for field testing in combat conditions. Lab and field evaluation results will inform Marine Corps requirements development and may lead to future fielding.
- Systems that make it through the five phases of E2C – from demonstration to fielding – can enable a more self-sufficient, combat-effective future force.

E2C 2015 RFI:

- View the E2C 2015 RFI: www.hqmc.marines.mil/e2c or www.fbo.gov (search keyword: 'E2C')
- The deadline to respond to the RFI is midnight EST on Friday, 6 March 2015.**

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