USMC Expeditionary Energy

E2S2 Brief
May 11

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Expeditionary Energy Office (E²O)
“The Marine Corps Expeditionary Energy Office will analyze, develop, and direct the Marine Corps’ energy strategy in order to optimize expeditionary capabilities across all Warfighting functions.”

E²O is the functional advocate for USMC expeditionary energy and serves as the Senior Official for operational energy IAW NDAA 2009.

Established 1 Oct 2010
USMC Organizational Construct

- Marine Air Ground Task Force (MAGTF)
  - Special Purpose MAGTF
    - ~150 Marines
    - 72 hours sustainment
  - Marine Expeditionary Unit (MEU)
    - ~1500 – 3K Marines
    - 15 days of supply
  - Marine Expeditionary Brigade (MEB)
    - ~3K – 20K Marines
    - 30 days of supply
  - Marine Expeditionary Force (MEF)
    - 20K – 90K Marines

- MAGTFs are self-contained and self-sufficient
  - “Plug and Play” into Joint Force
  - Operate from the Sea and at Sea
  - Sustained Operations Ashore
  - Humanitarian Relief

"Middle Weight Force in Readiness"
Today’s MAGTF Challenge
Distributed Operations

- 250% Increase in Radios
- 300% Increase in IT/Computers
- 200% Increase in # of Vehicles
- 75% Increase in Vehicle WGT
- 30% Decrease in MPG

150 Marines conducting operations that 1,000 Marines plus conducted 10 years ago!
Marines in Afghanistan

Fuel Distribution:
- 200,000 gal/day, $7.05/gal
- 60,000 gal/day, $154M/yr

Power Generation:
- 60,000 gal/day, $154M/yr

#1 Threat: Improvised Explosive Device

Wounded: 1 Marine per 50 Fuel/Water Convoys
USMC OEF Logistics Causalities
24 Mar 10 – 30 Jun 10

• 299 Fuel/Water Convoys (98 Days)

• 6 Marines WIA hauling Fuel/Water

• 1 Marine WIA per 50 Fuel/Water Convoys
Mandate:
Enhance warfighting capability by requiring 50% less fuel by 2025
"35th Commandant's Planning Guidance"

Change Ethos + Increase Energy Efficiency + Renewable Energy = Increase Combat Effectiveness

<table>
<thead>
<tr>
<th>Today</th>
<th>Feb 11</th>
<th>Apr 11</th>
<th>2011</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy and Supporting Requirements Documents Being Written in Parallel</td>
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</tbody>
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Fossil Fuel

Marine / Day

USMC Expeditionary Energy Strategy

Expeditionary Energy, Water, and Waste CBA / ICD

Direct S&T / R&D

Alternative Fuel

Future Capability Require Mobility Fuels Only 50% From Alternatives

Current Status: CMC signature 23 Feb 11
E2W2 ICD / CBA in staffing