

USMC Expeditionary Energy



E2S2 Brief
May 11

Captain Brandon Newell
Expeditionary Energy Office (E²O)

Unclassified

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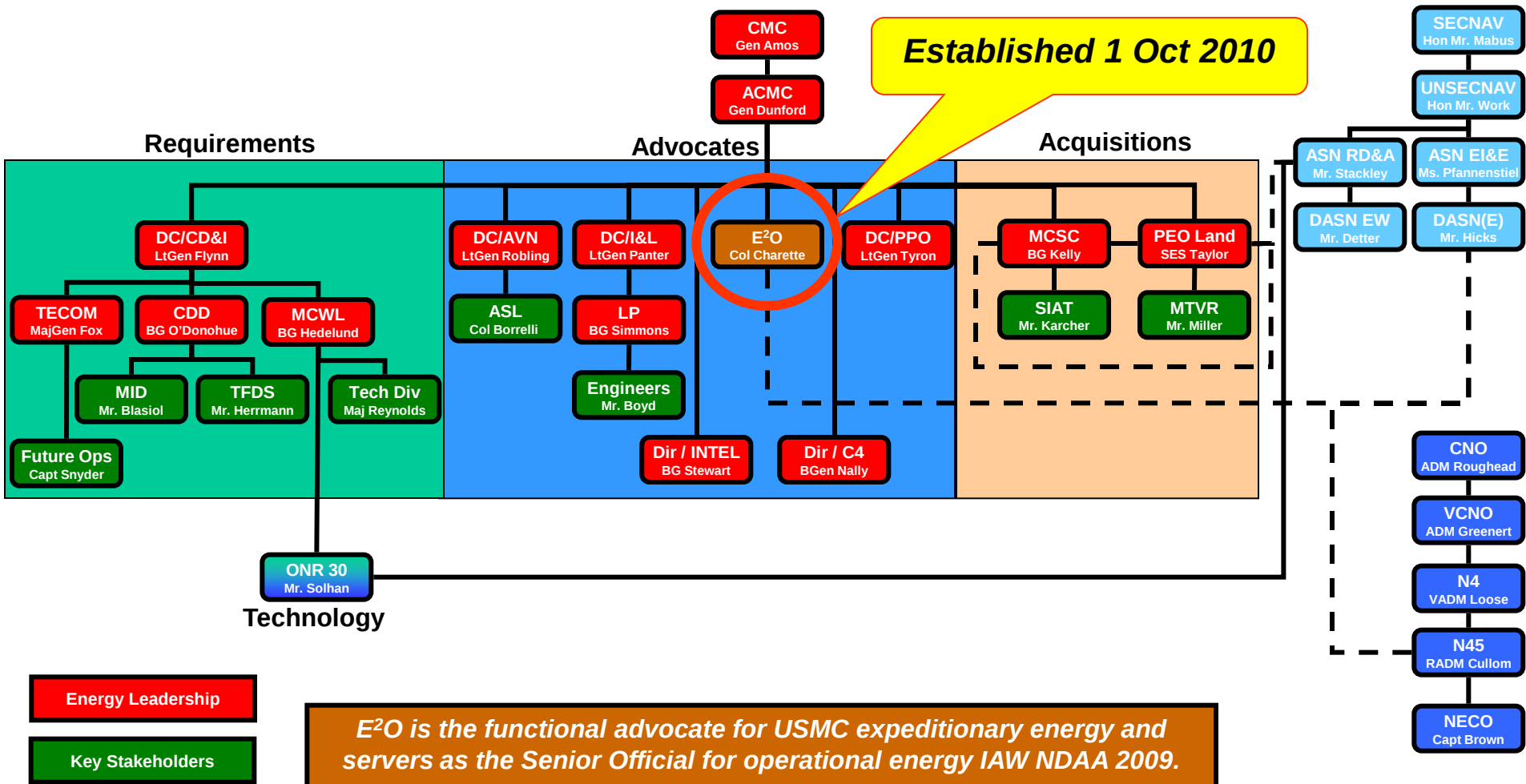


USMC

Operational Energy Stakeholders



"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."



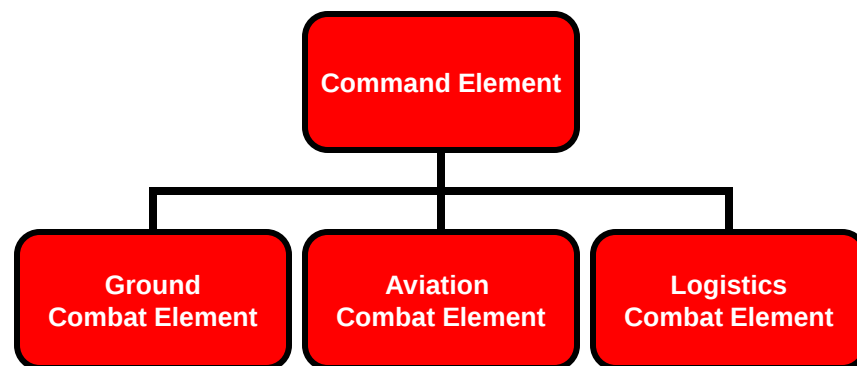
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USMC Organizational Construct



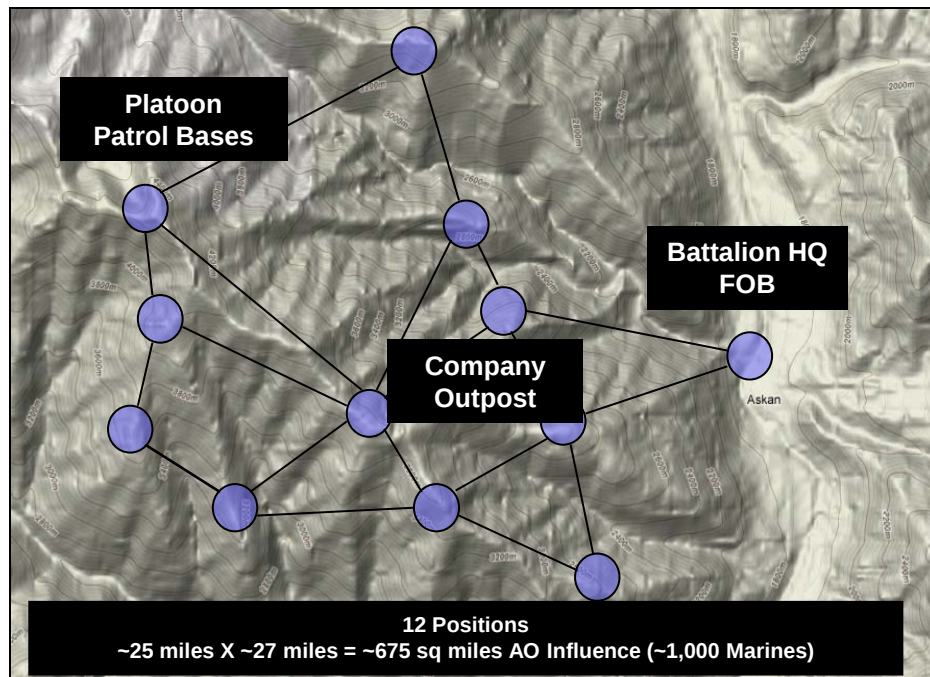
- Marine Air Ground Task Force (MAGTF)
 - Special Purpose MAGTF
 - ~150 Marines
 - 72 hours sustainment
 - Marine Expeditionary Unit (MEU)
 - ~1500 – 3 K Marines
 - 15 days of supply
 - Marine Expeditionary Brigade (MEB)
 - ~3K – 20K Marines
 - 30 days of supply
 - Marine Expeditionary Force (MEF)
 -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



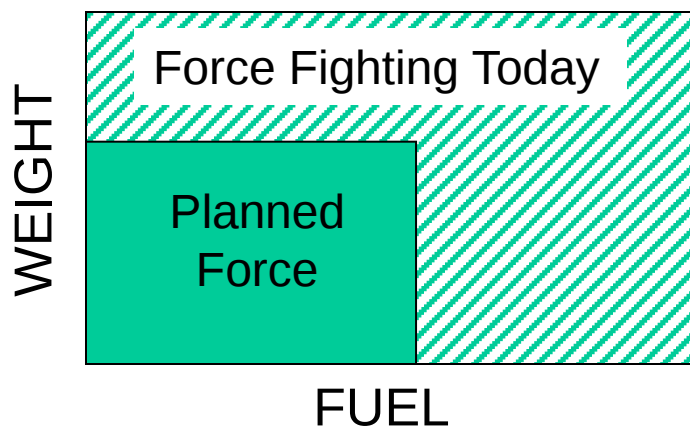
“Middle Weight Force in Readiness”



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!

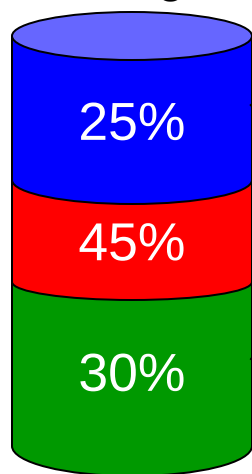


Marines in Afghanistan



Fuel Distribution:

200,000 gal/day
\$7.05/gal



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

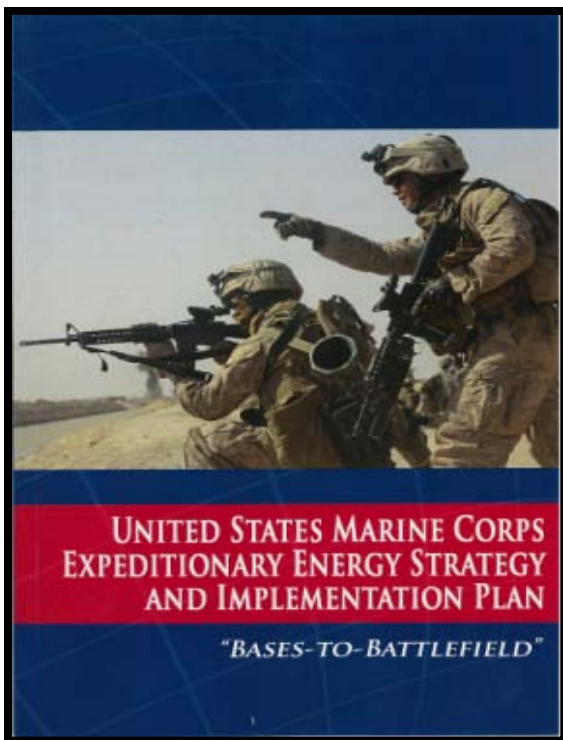
24 Mar 10 – 30 Jun 10



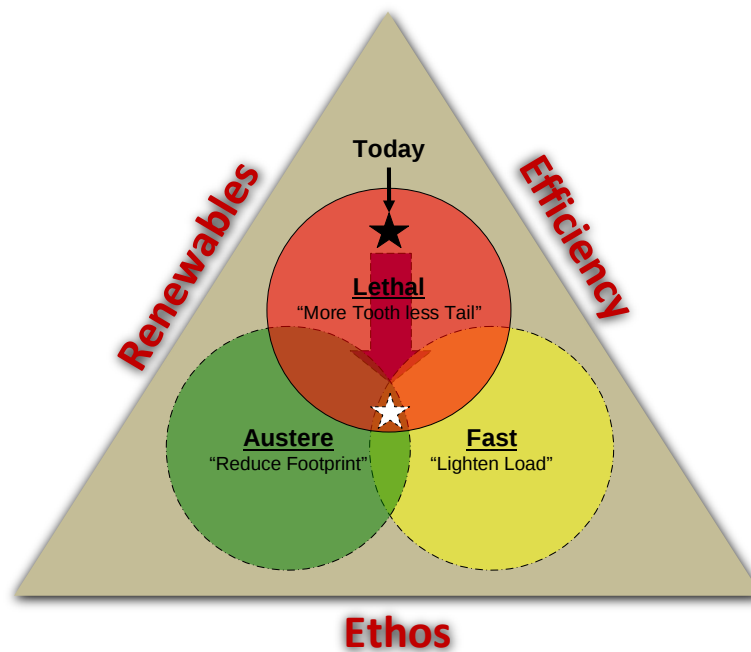
- 299 Fuel/Water Convoys (98 Days)
- **6 Marines WIA** hauling Fuel/Water
- **1 Marine WIA per 50 Fuel/Water Convoys**



Marine Corps Energy Strategy



Mandate:
Enhance warfighting capability by requiring
50% less fuel by 2025





Long Term Plan

"35th Commandant's Planning Guidance"

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

Today

Feb 11

Apr 11

2011

2025

Fossil Fuel

Fuel
1Gal

Fuel
1Gal

Fuel
1Gal

Fuel
1Gal

Fuel
1Gal

Fuel
1Gal

Fuel
1Gal

Fuel
1Gal

Marine / Day

USMC
Expeditionary
Energy
Strategy

Expeditionary
Energy, Water,
and Waste
CBA / ICD

Direct
S&T / R&D

Alternative Fuel

Fuel
1Gal

Fuel
1Gal

Fuel
1Gal

Fuel
1Gal

Marine / Day

Strategy and Supporting Requirements
Documents Being Written in Parallel

Future Capability
Require Mobility Fuels Only
50% From Alternatives

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

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