4.8 Weight Reduction

"We are currently developing a plan for reducing the size and weight of Marine Expeditionary Units, Marine Expeditionary Brigades so that they can begin to fit within likely lift constraints."

-General James F. Amos, Commandant of the Marine Corps, February 8, 2011

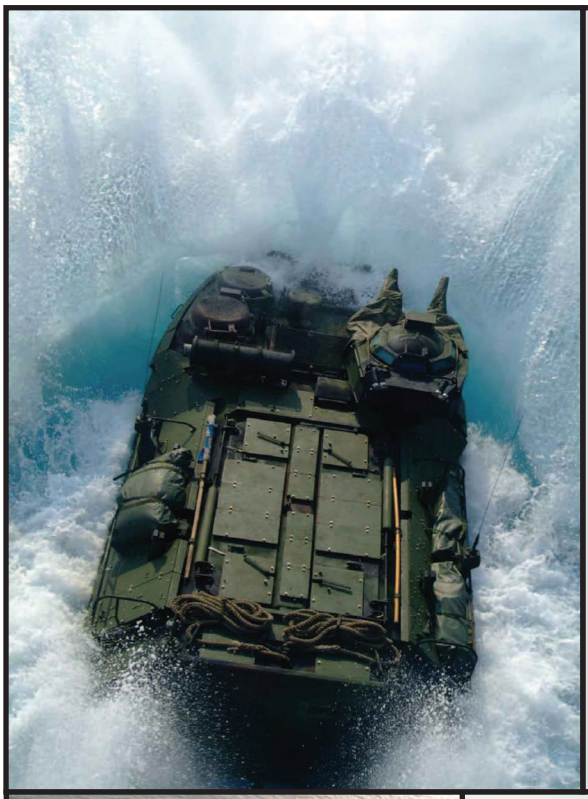
Bottom Line Up Front	
Challenge	
The challenge in this focus area is to meet the Commandant's Directive to "Lighten the MAGTF" while maintaining combat effectiveness, survivability, and mobility requirements.	
Potential Solutions	
ONR	Fuel Efficient MTVR (FNC 12) Expeditionary Light Armor Seeding Development Advanced Concepts for Fuel Efficiency Efficient Powertrain Technologies Integration (Partnering with TARDEC)
TARDEC	Alternative Fuels & Petroleum, Oil & Lubricants Hybrid Vehicle Testing Program Next Generation Engine Research Efficient Powertrain Technologies Integration (Partnering with ONR)
SBIR	Modular Lightweight External Fuel Tank System (PEO LS SBIR)
Other	Integrated Starter Generator (ISG) that reduces up to 300 pounds per vehicle Fuel efficiency programs will reduce the fuel required to be transported

Potential Solutions

PEO LS is engaged with ONR, MCSC, RDECOM, TARDEC, NSWC Dahlgren as well as various industry partners, small businesses (SBIRs) and other agencies to address the Marine Corps' vehicle weight reduction challenge.

"We're too heavy. We've got to get light."

-Brigadier General Frank Kelley, Commanding General, Marine Corps Systems Command, September 29, 2010



"We need to get lighter, and sometimes, when you look at your vehicle strategy, you have to take a look at the environment that you're going to operate in. There's a protection that comes from mobility. If you can move fast and if you can move on unpredictable routes, you can not necessarily armor up as much."

- Lieutenant General George Flynn, Commanding General, Marine Corps Combat Development Command, June 3, 2010

Innovative weight reduction programs currently being explored within the S&T community include:

- Modular Lightweight External Fuel Tank System (PEO LS SBIR)
- Expeditionary Light Armor Seeding Development (ONR)
- Advanced Concepts for Fuel Efficiency (ONR)
- Alternative Fuels & Petroleum, Oil & Lubricants (TARDEC)
- Efficient Powertrain Technologies Integration (ONR and TARDEC)
- Fuel Efficient MTVR (ONR FNC 12)
- Hybrid Vehicle Testing Program (TARDEC)
- Next Generation Engine Research (TARDEC)
- ISGs that reduce up to 300 pounds per vehicle
- Fuel efficiency programs will reduce the fuel required to be transported