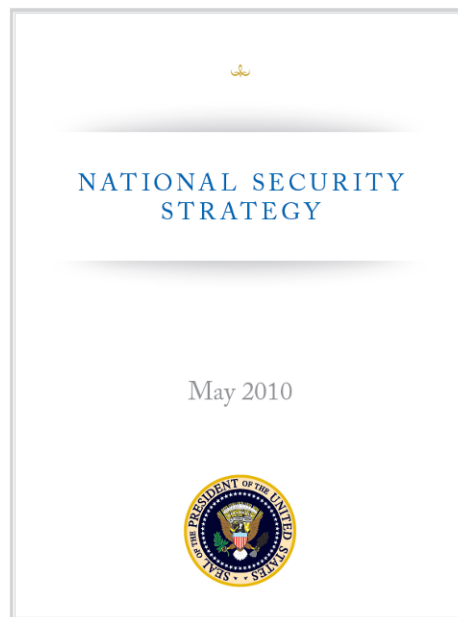
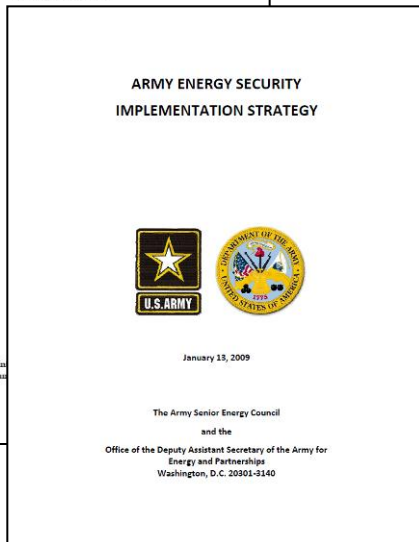
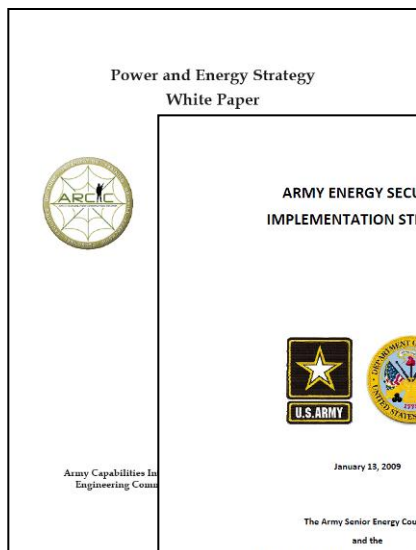
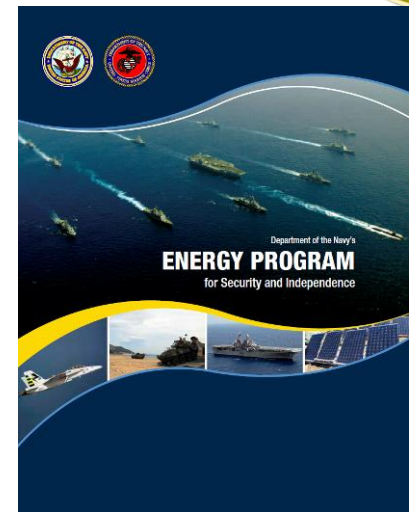
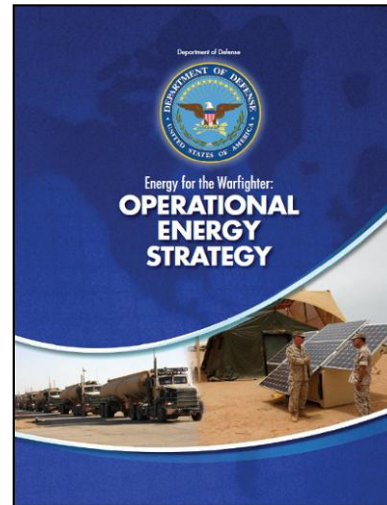
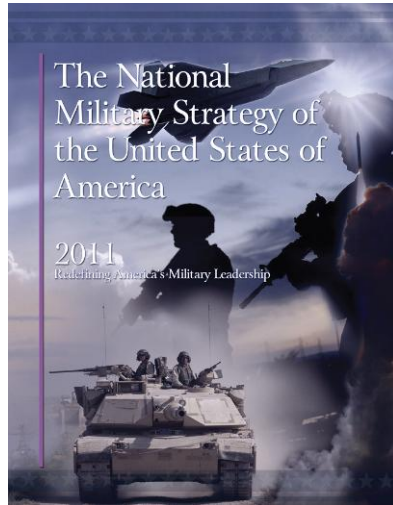
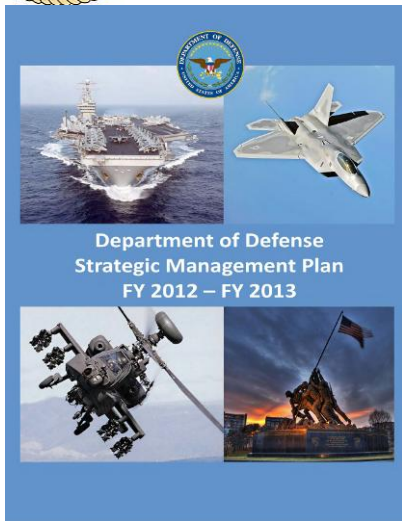
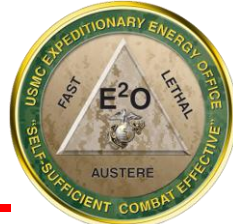




Unclassified



Hear About Energy?



Unclassified



Yes You Have!



Sea Air Space



18 Apr 12

Col Bob “Brutus” Charette, USMC
Director, Expeditionary Energy Office (E2O)







Logistics Convoy Study

Updated Jan 12'



- **1 Marine/Civ KIA/WIA per 50 Fuel/Water Convoys**
- **1 EID Incident per 17 Fuel/Water Convoys**



CMC Testimony to Congress

16 Feb 2012



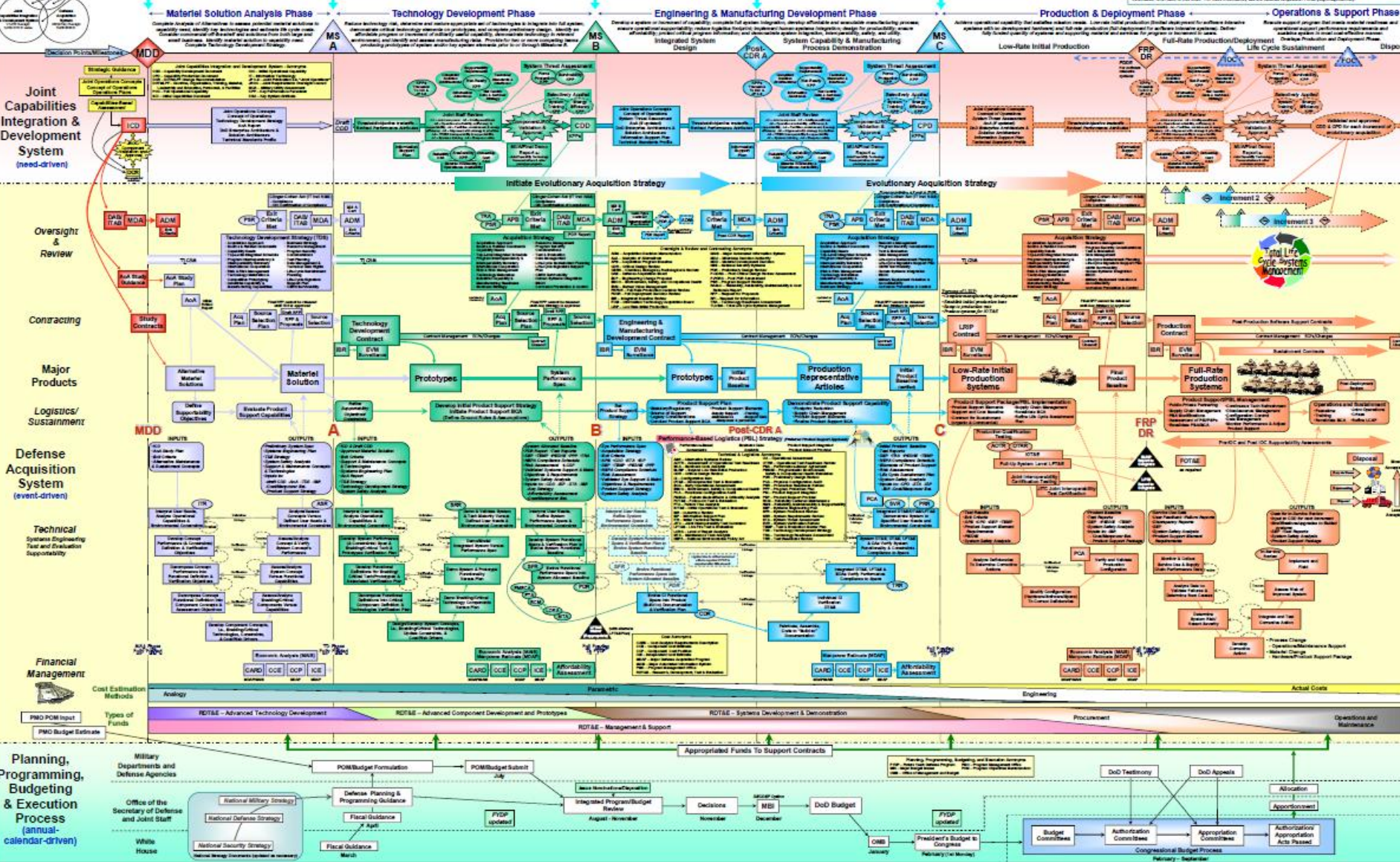
Modernization in the following areas is **critical** to maintaining operational capabilities and readiness:

- Ground Combat Tactical Vehicles
- Aviation
- Preparing for Future Battlefields
- Amphibious and Pre-positioning Ships
- ***Expeditionary Energy***
- Intelligence, Surveillance and Reconnaissance

Integrated Defense Acquisition, Technology, and Logistics Life Cycle Management System

Following the Materiel Development Decision, the Milestone Decision Authority may authorize entry into the acquisition process at any point, consistent with phase-specific entrance criteria and statutory requirements

The chart is a collection of the Defense Acquisition University systems. It provides a unified framework of information through which the Department of Defense and its agencies can plan, execute, and evaluate the acquisition process. The chart is a collection of the Defense Acquisition University systems. It provides a unified framework of information through which the Department of Defense and its agencies can plan, execute, and evaluate the acquisition process. The chart is a collection of the Defense Acquisition University systems. It provides a unified framework of information through which the Department of Defense and its agencies can plan, execute, and evaluate the acquisition process.



Joint Capabilities Integration & Development System (need-driven)

Oversight & Review

Contracting

Major Products

Logistics/Sustainment

Defense Acquisition System (event-driven)

Technical Systems Engineering Plan and Evaluation Supportability

Financial Management

Planning, Programming, Budgeting & Execution Process (annual-calendar-driven)

For a complete copy of this chart, visit us at www.dau.mil



Military Objective and Strategic Framework



Mission

By 2025 we will deploy Marine Expeditionary Forces that can maneuver from the sea and sustain C4I and life support systems in place; the only liquid fuel needed will be for mobility systems which will be more energy efficient than systems are today.



Strategy and supporting requirement documents established to guide investment today and tomorrow.



Experimental Forward Operating Base (ExFOB)



Semi-annual process to evaluate technologies and educate Marines in support of the **“Marine Corps Expeditionary Energy Strategy and Implementation Plan.”**

Unclassified



First ExFOB (Mar 2010) "Concepts-to-Combat-to-Programs"



Unclassified



PB Boldak Hybrid Power Evaluation



10kW TQG vs. Hybrid Power
(Sep 11'-to-Dec 11')



Evaluation Metrics	10kW TQG	Hybrid Power
Generator Runtime	2928 hrs	585 hrs
Total Gallons Burned	1040 gal	459 gal

Very Effective Powering Loads Below 6kW

- 80% Reduction in GENSET Runtime
- 55% Reduction in Fuel Consumed
- Informing MAGTF Expeditionary Hybrid Power AoA



Non-Material Solutions Training, Education, and Doctrine



- Common Skills Program “Expeditionary Ethos”
- Training and Readiness Manuals “Boiler Plate”
- Expeditionary Warfare School
- Commanders Course Presentation
- Doctrine Review

- Training “Road Show” New Equipment

- Naval Post Graduate School
 - Energy Curricula







Nawa Renewable Energy Project



Unclassified



“We Are Looking For A Few Good Technologies”



- ***Temp Independent Electronics***
- ***Efficient Cooling / Heating of Personnel***
- ***Energy Storage***
- ***Energy Harvesting***
 - ***Solar***
 - ***Kinetic***
 - ***Thermal***
 - ***Waste***
 - ***Etc...***
- ***More Efficient Electronics / Vehicles / Equipment***
- ***Vehicles as a Power Source***
- ***New Leadership and Training***

We don't create markets, we protect our Nation!

