

UNCLASSIFIED

# *ENERGY FOR THE WARFIGHTER:*

## *The DoD Operational Energy Strategy*

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Operational Energy*



# Report Documentation Page

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# *The Context: Strategic Environment*

**Homeland Defense**



**WMD Proliferation**



**Current Conflicts**



**Cyber Threats**



**Humanitarian Assistance**



**Rising Powers**





# The Context: Global Energy Supply

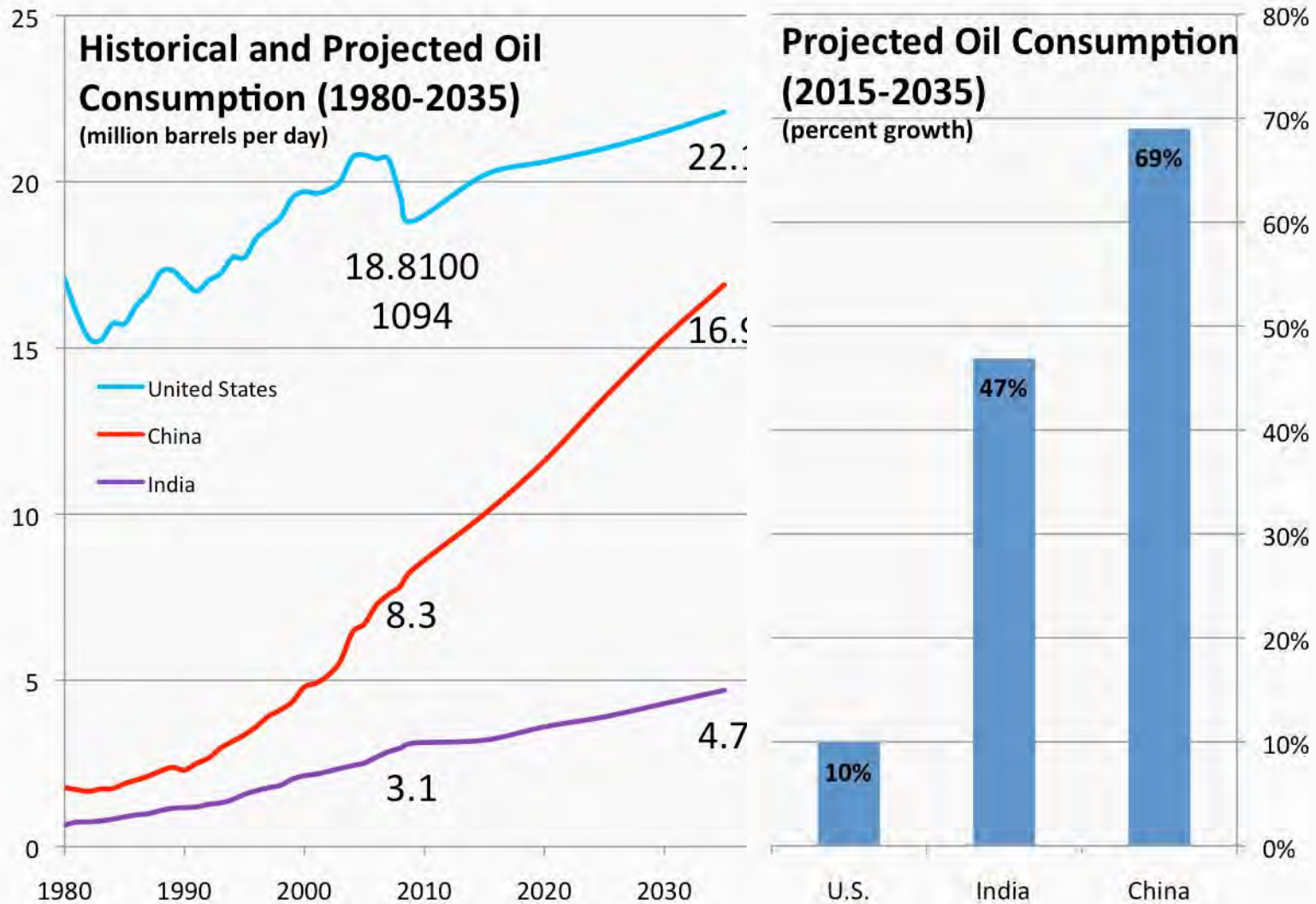


**Dynamic energy markets have geopolitical, fiscal, and strategic implications**

Sources: BP Statistical Review Year-End 2004 and Energy Information Administration; Environmental Action; BP Statistical Review of World Energy June 2011 Reserves-to-production ratios



# The Context: Global Energy Demand



Source: U.S. Energy Information Agency; World Petroleum Consumption, 1960-2008; International Energy Outlook 2010, World Liquids Consumption by Region, Reference Case



# The Context: DoD Fiscal Challenges

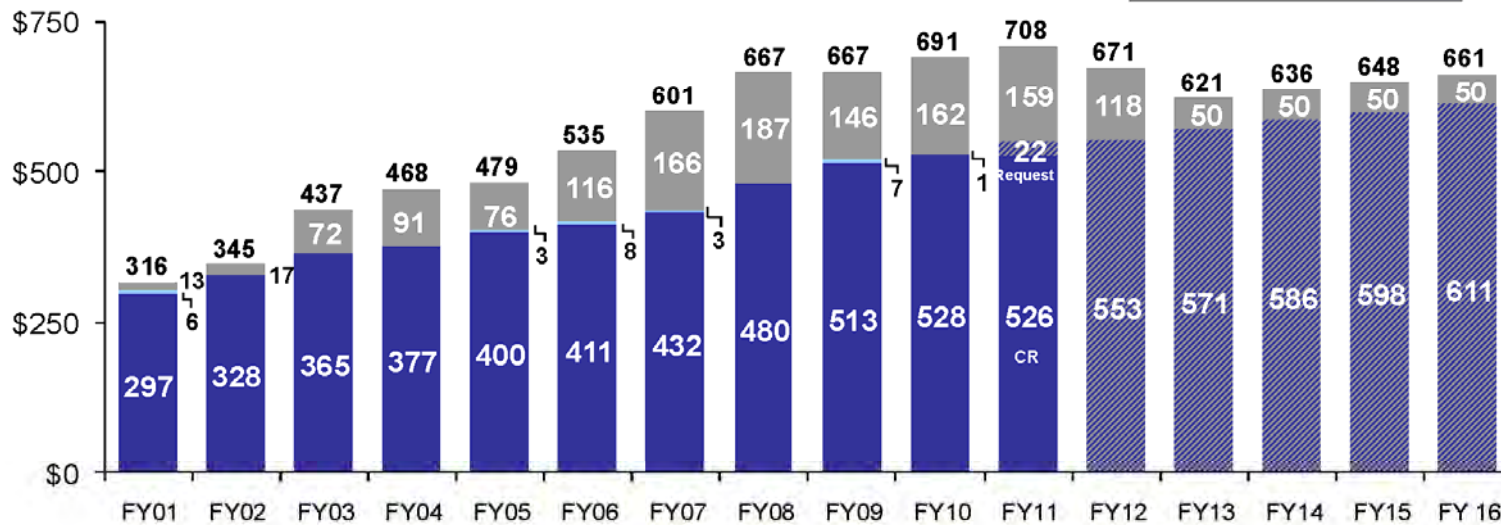
## Department of Defense Topline

FY 2001 – FY 2016

(Current Dollars in Billions)

FY 2010 – FY 2016 Base Growth	
Nominal Growth	2.5%
Real Growth	0.5%

**\$450B**  
**+?**



Numbers may not add due to rounding

■ Base Budget ■ OCO Funding ■ Non-War Supplemental ■ Base Budget Position

Notes: • FY 2012 – FY 2016 reflects levels included in the President's FY 2012 Budget Request; FY 2009 Non-War Supplemental was appropriated through the American Recovery and Reinvestment Act of 2009

• FY 2011 reflects the addition of the annualized 2011 Continuing Resolution and an adjustment to the Presidents FY2012 Budget Request

Source: Department of Defense Appropriation Acts FY 2001 – FY 2010, FY2011 Continuing Resolution, FY 2011-FY2012 President's Budget documents



# Energy for a Globally Active Force

## Defense Fuel Supply Sales By Country

(January-April 2011)

**Greenland**  
4.6M Gallons  
\$14.1M

**Germany**  
54.4M Gallons  
\$164.4M

**Spain**  
40.6M Gallons  
\$123.1M

**Italy**  
14.6M Gallons  
\$44.4M

**Iraq**  
94.5M Gallons  
\$285.7M

**Kyrgyzstan**  
41.6M Gallons  
\$126.1M

**Afghanistan**  
76.2M Gallons  
\$231.4M

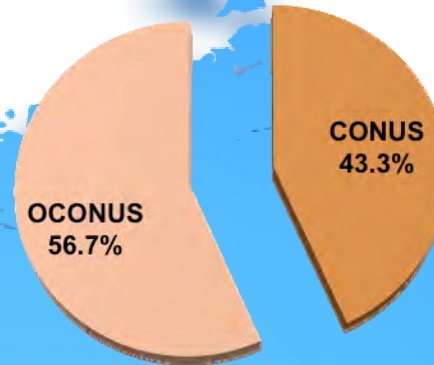
**Qatar**  
93.1M Gallons  
\$282.2M

**UAE**  
65.0M Gallons  
\$199.0M

**Japan**  
55.9M Gallons  
\$169.2M

**Guam**  
18.4M Gallons  
\$55.6M

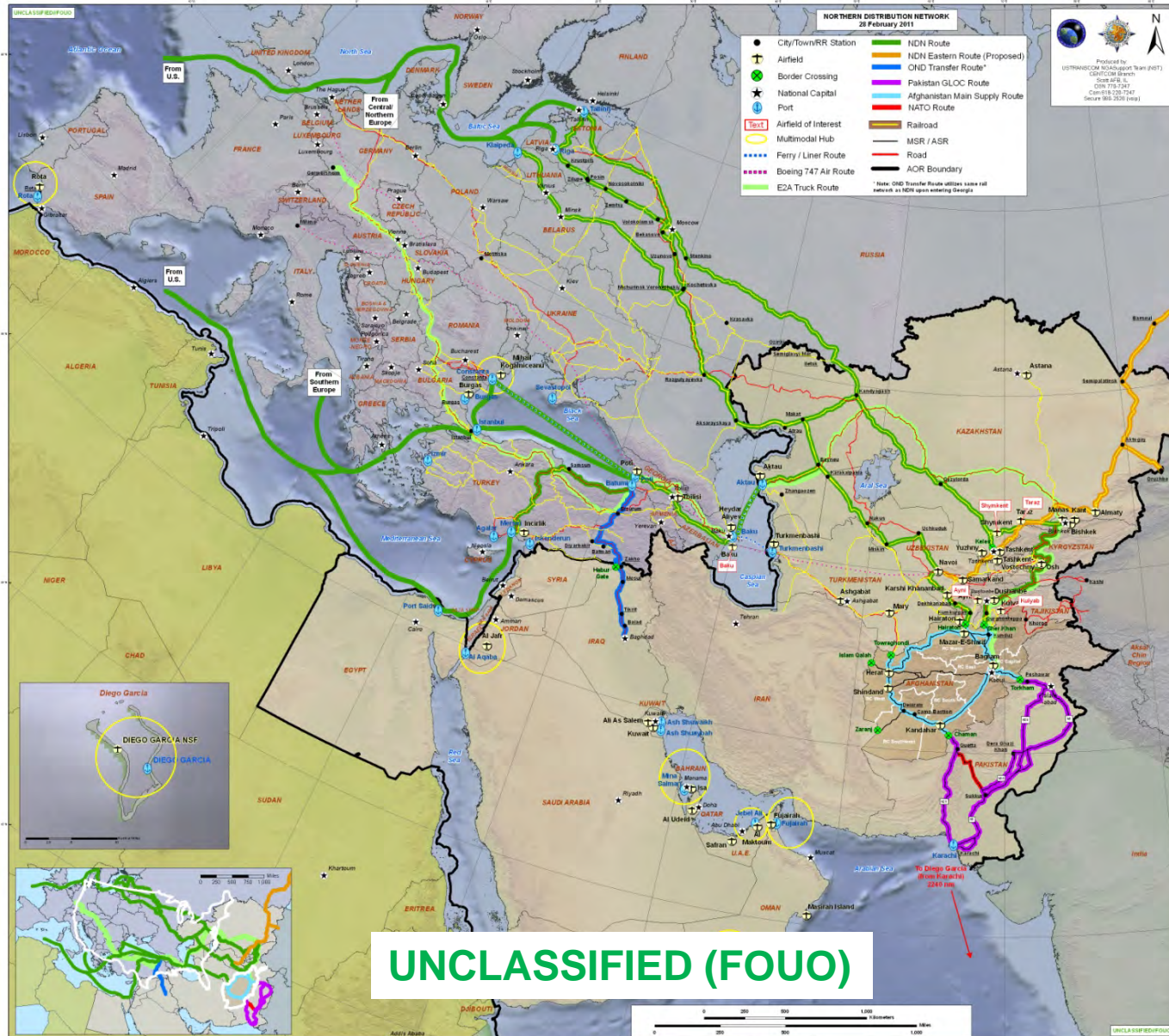
**Vessels Afloat**  
168.6M Gallons  
\$510M



1,538,127,144 Gallons of Fuel in 4 months



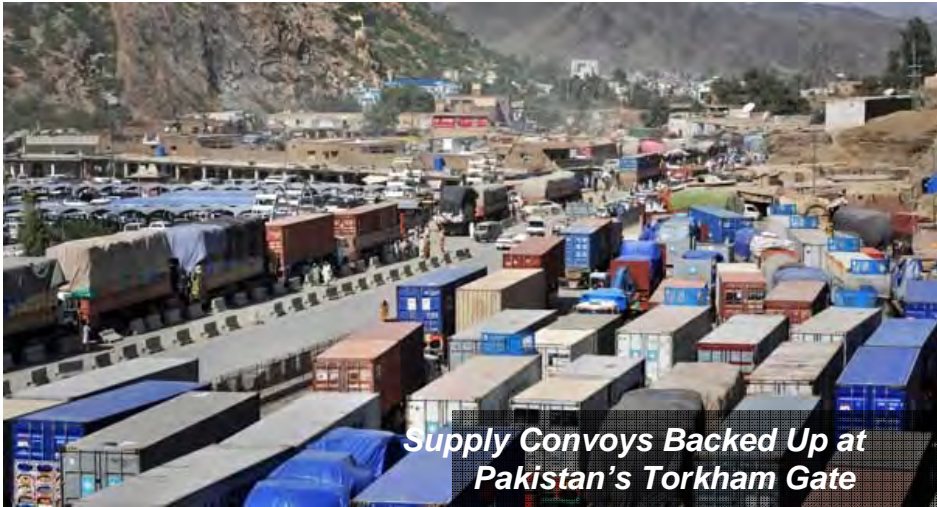
# Getting Fuel to the Fight: A Strategic Challenge







# Getting Fuel to the Fight: A Tactical Challenge



Supply Convoys Backed Up at Pakistan's Torkham Gate



Bundles of fuel dropped from a USAF C-17 over Afghanistan, December 2010



## *The Highest Price*

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- Iraq & Afghanistan – 3,000 Army personnel or contractors killed or wounded between FY03-07 in attacks on water and fuel convoys**
- Afghanistan – One Marine wounded for every 50 convoys in 2010**



# Strategic Guidance on Energy

- ❑ **2011 National Military Strategy**
  - “Joint Forces must become more expeditionary in nature and will require a smaller logistical footprint in part by reducing large fuel and energy demands.”
- ❑ **Quadrennial Defense Review**
  - “Energy security for the Department means having assured access to reliable supplies of energy and the ability to protect and deliver sufficient energy to meet operational needs.”



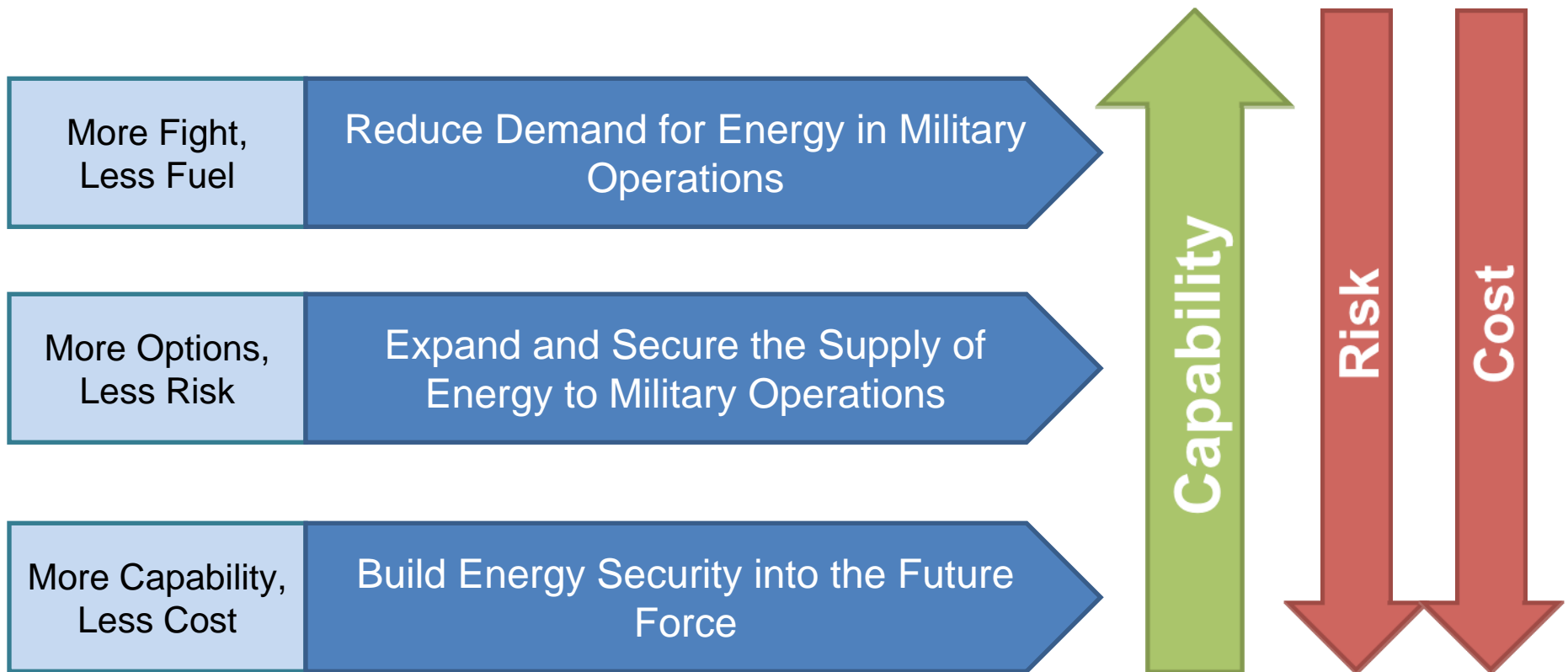
“Our military leaders recognize the security imperative of increasing the use of alternative fuels, decreasing energy use, reducing our reliance on imported oil, making ourselves more energy-efficient.”



# *The DoD Operational Energy Strategy*

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- ❑ **GOAL: to assure that U.S. armed forces will have the energy they require for 21<sup>st</sup> century military missions**





# *More Fight, Less Fuel: REDUCING DEMAND*

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# *More Options, Less Risk: INCREASING SUPPLY*

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# More Capability, Less Cost: THE FUTURE FORCE

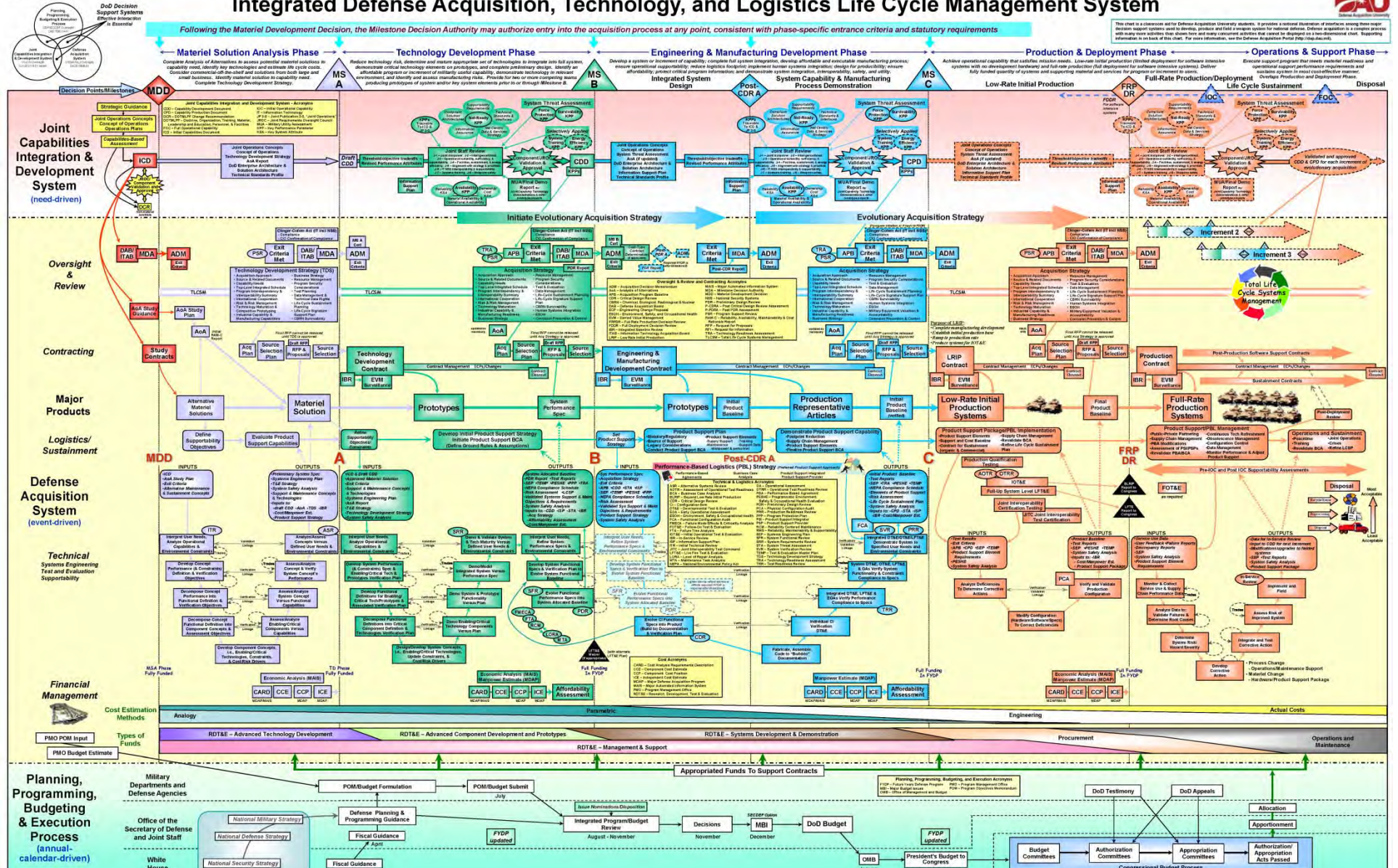
Version 5.4 15 June 2010

## 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

This chart is a companion with Defense Acquisition University (DAU) systems. It provides a national distribution of resources, showing how support systems are used to develop, produce and field a weapon system for national defense. Defense acquisition is a complex process with many milestones that show how they are related to the milestones that occur in the Acquisition Plan (AP) (see chart). Supporting information is in back of this chart. For more information, see the Defense Acquisition Plan (DAP) (see chart).





## *What Does Success Look Like?*

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### **Energy as a Strategic Advantage for the Warfighter**

- Fewer casualties from moving and protecting fuel.**
- Improved range, endurance, and reliability of forces and equipment.**
- Deploying some combat forces and capabilities away from supply lines to operational missions.**
- Lightening the logistics load and reducing the vulnerability of fuel supply lines.**
- Strengthening DOD's resilience to energy price and supply volatility and disruption.**
- Posturing the future force for success by better aligning resources to tactical, operational, and strategic goals.**
- Building partner nation capacity by sharing improved operational energy capabilities**
- Contribute to national energy security goals, such as reducing reliance on fossil fuels, cutting greenhouse gas emissions, and stimulating innovation in the civilian sector.**