



Department of Navy High Impact Biomass Projects

Chris Tindal

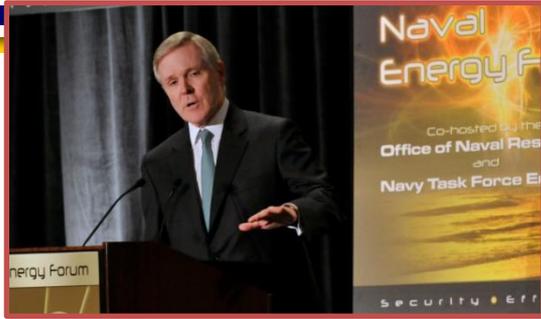
Director for Operational Energy

Office of the Deputy Assistant Secretary of the Navy (Energy)

July 11, 2011



Our Energy Goals



Increase Alternative Energy Department-wide

By 2020, 50% of total Department energy consumption will come from alternative sources

Increase Alternative Energy Sources Ashore

By 2020, at least 50% of shore-based energy requirements will be met by alternative sources; 50% of Department installations will be net-zero

Reduce Non-tactical Petroleum Use

By 2015, Department will reduce petroleum use in vehicles by 50%

Sail the "Great Green Fleet"

Department will demonstrate a Green Strike Group in local operations by 2012 and sail it by 2016

Energy Efficient Acquisitions

Evaluation of energy factors will be mandatory when awarding contracts for systems and buildings

MCAS Miramar, CA

3.2 MW ; ~50% of base energy requirements



MCLB Albany, GA
1.9 MW, 22% of base needs



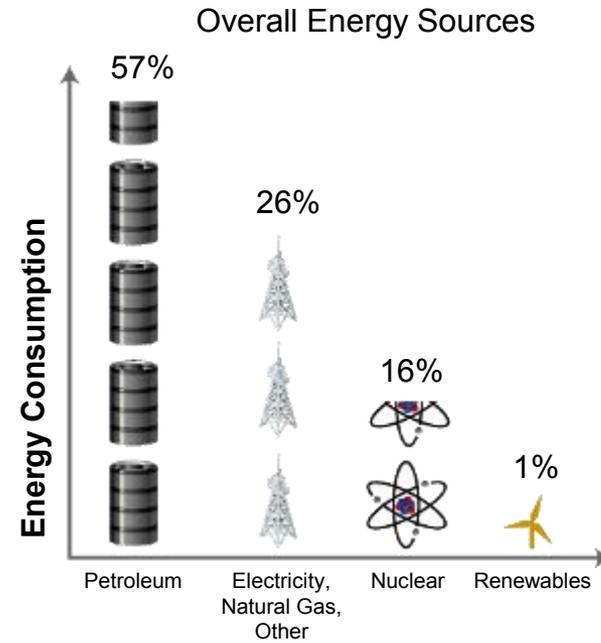
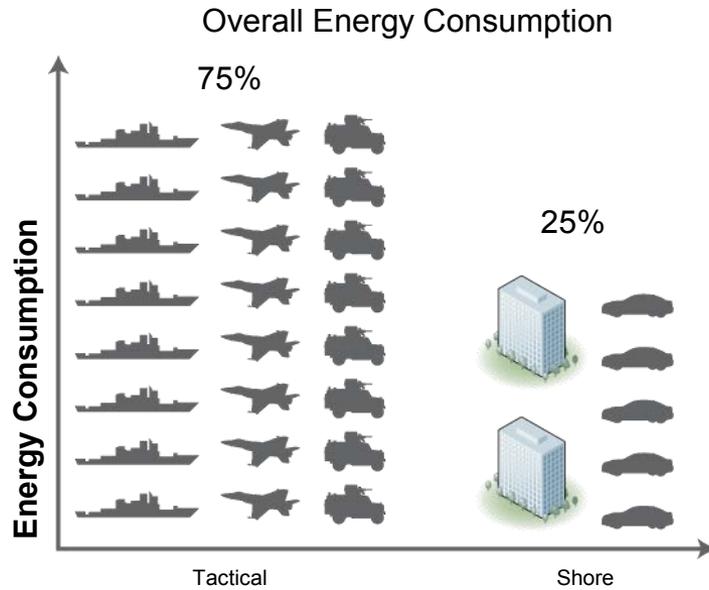
Portsmouth, VA

Provides power for Navy's largest shipyard and sells excess to the grid





Naval Energy Profile

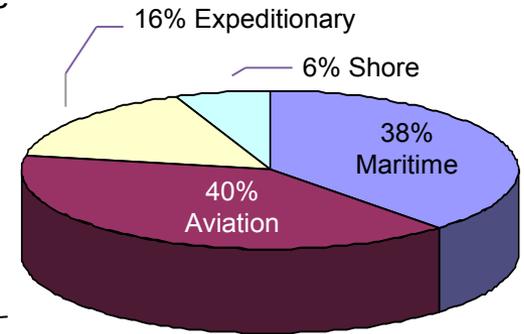


Navy Petroleum Consumption in Perspective

U.S. Petroleum Consumption



U.S. Government
(2% of U.S.)





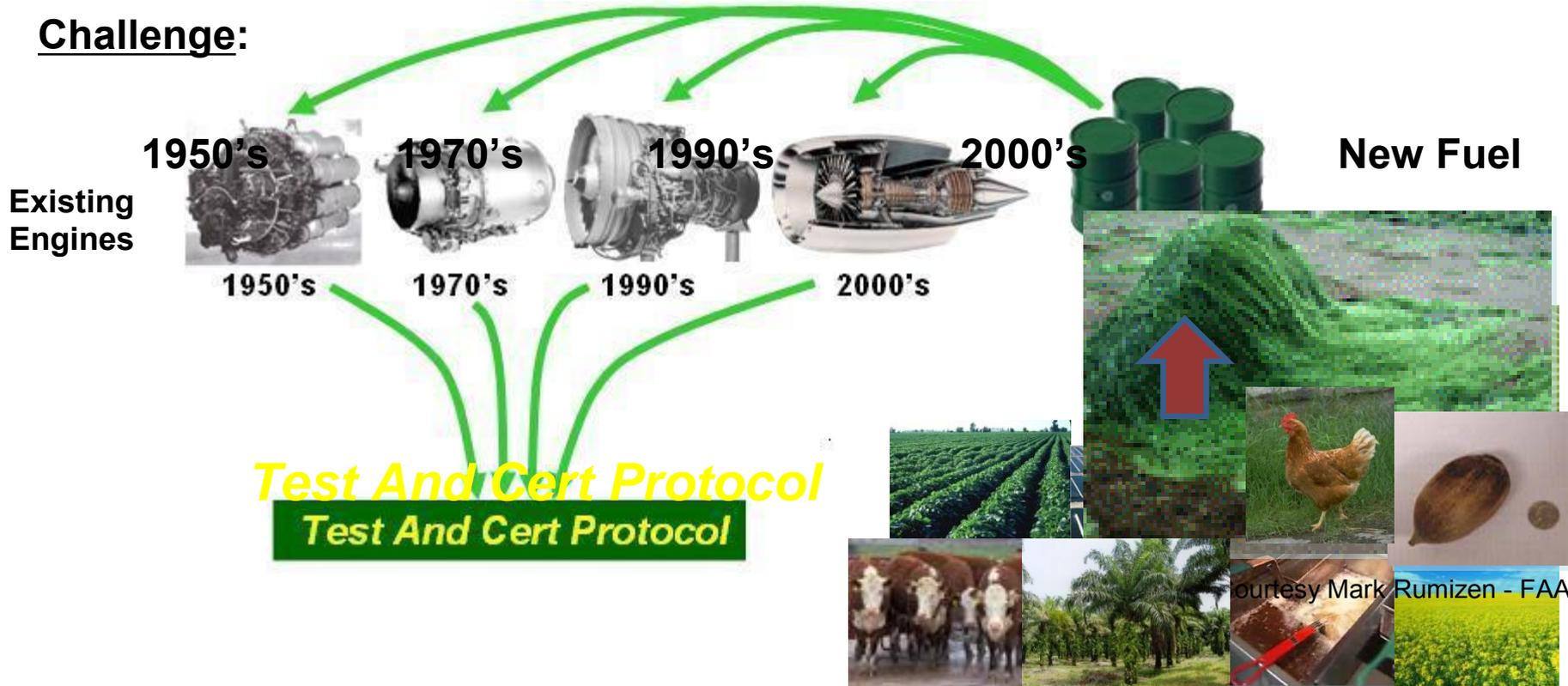
DON Perspective on Alternative Fuels

Requirement:

Alternative fuel must be **a drop-in replacement, invisible to the operator**

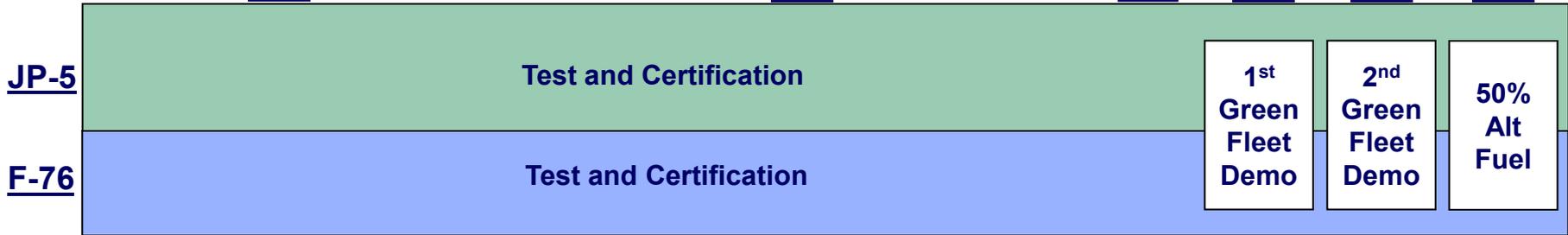
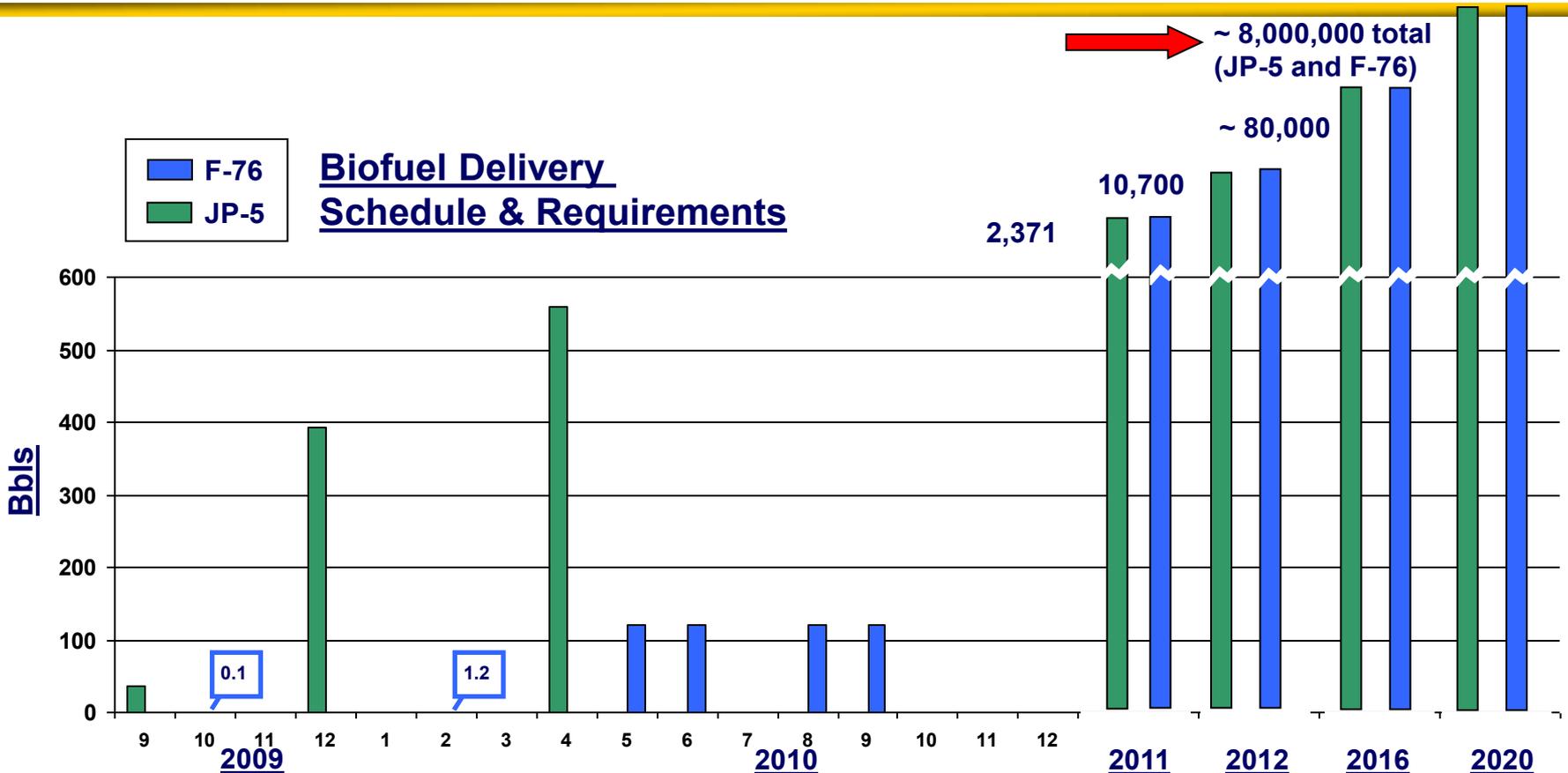
- ✓ Meets fuel performance requirements
- ✓ Requires NO change to aircraft or ship
- ✓ Can be mixed or alternated with petroleum fuel
- ✓ Requires NO change to infrastructure

Challenge:





Navy Biofuel Needs



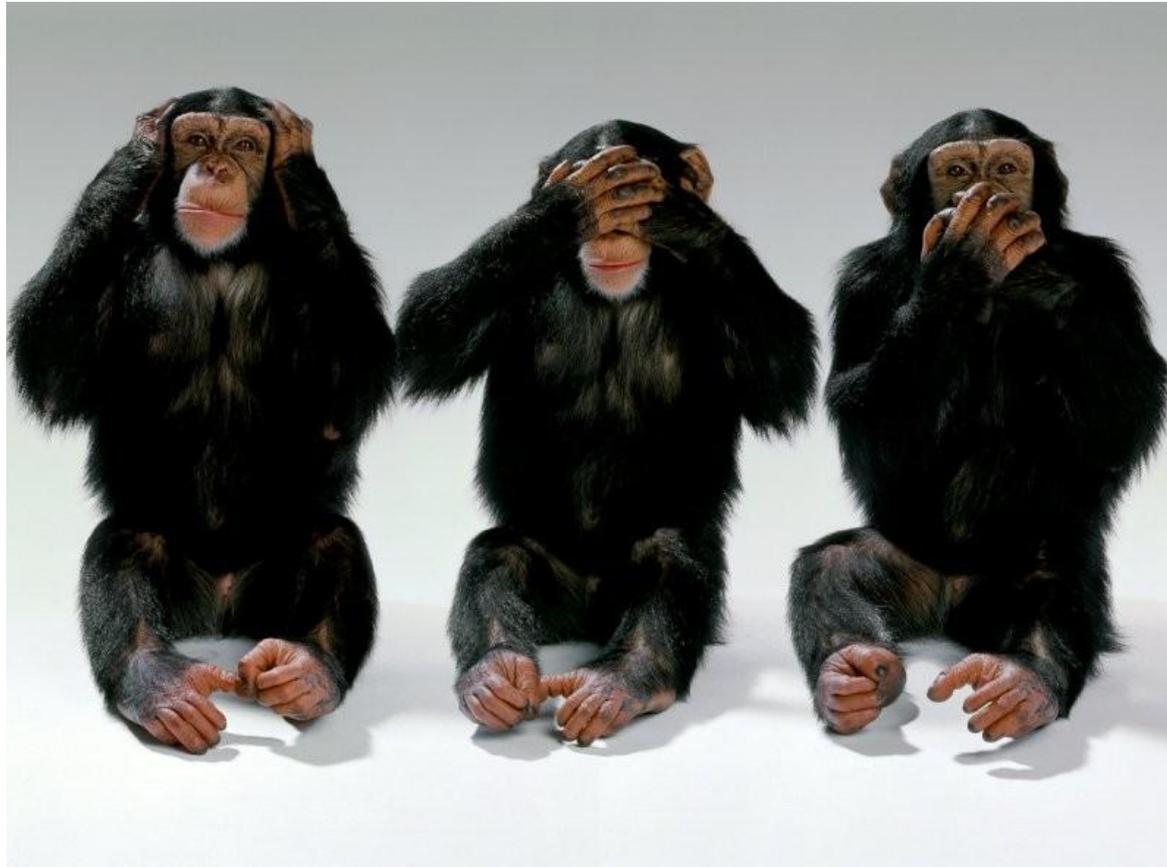


Defense Production Act Title III



Funding Opportunity Announcement:

- Released June 27, 2012
- Search fbo.gov for FOA-12-15-PKM





Aviation Testing Progress





Ship Testing Progress





RIMPAC 2010



Renewable Energy Platform



Thank you!