





# SECNAV Energy Goals



*Increase Alternative Energy  
Department-wide*

*Increase Alternative Energy  
Sources Ashore*

*Reduce Non-tactical Petroleum Use*

*Sail the "Great Green Fleet"*

*Energy Efficient Acquisitions*



# Great Green Fleet Launches



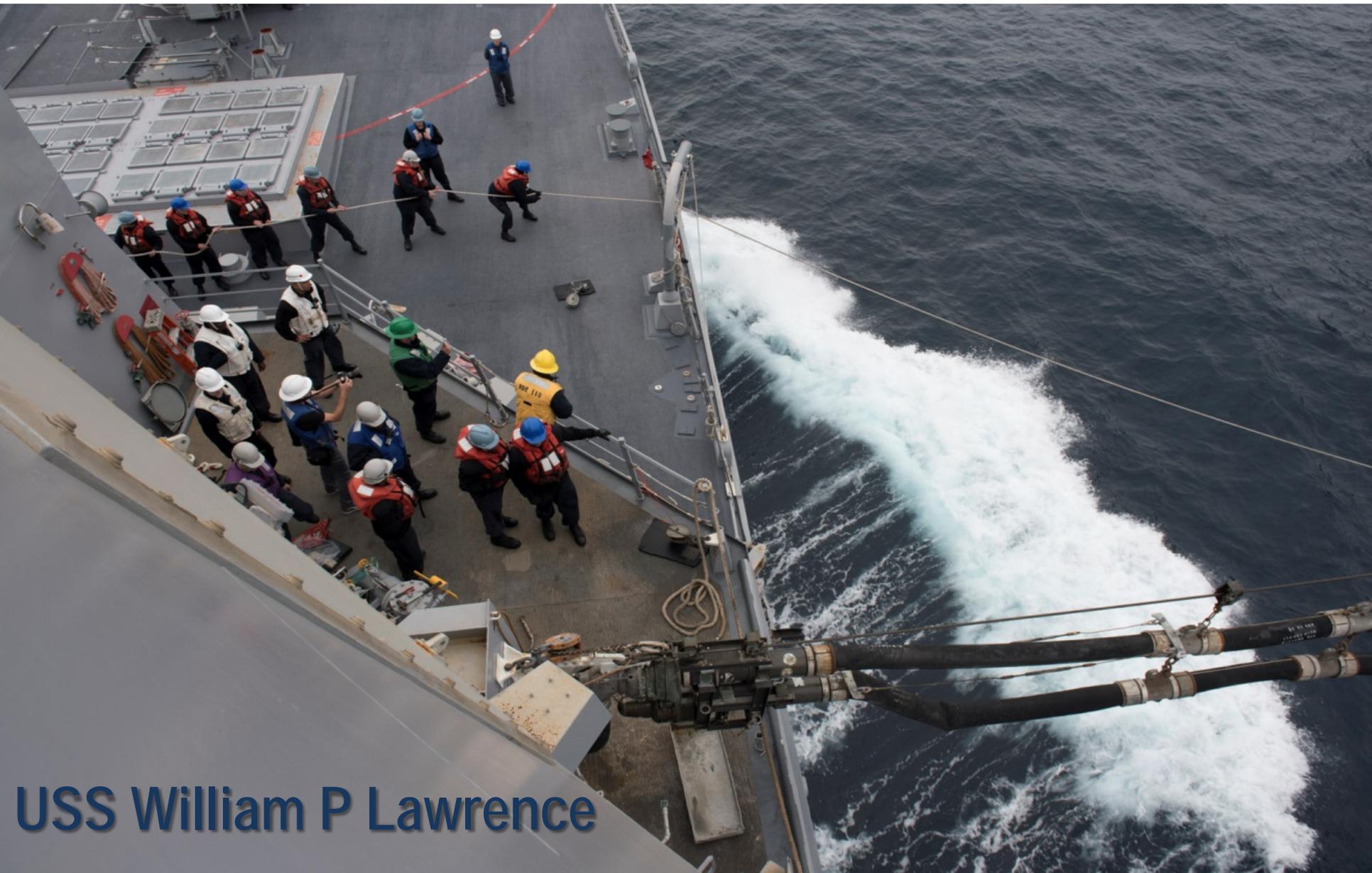
September 2015 – DLA Energy awards contract for alternative F-76

January 2016 – USS John C Stennis CSG deploys on alternative fuel, launching the Great Green Fleet





# Great Green Fleet Launches



**USS William P Lawrence**



**June 2016**



# First alternative fuel RAS with foreign oiler





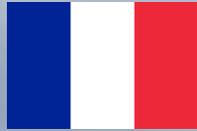


July 2016





# RIMPAC 2016



**11+ million gallons to 9 countries**



**August 2016 – USS Stethem in Australia**





**August 2016 – Statement of Cooperation with Queensland**



# Navy Synthetic Fuel Qualification Roadmap



**2017**

CHCJ Added to JP-5 Spec

**2016**

SIP Added to F-76 Spec

**2016**

SIP and ATJ Added to JP-5 Spec

**2014**

FT & HEFA Added to F-76 Spec

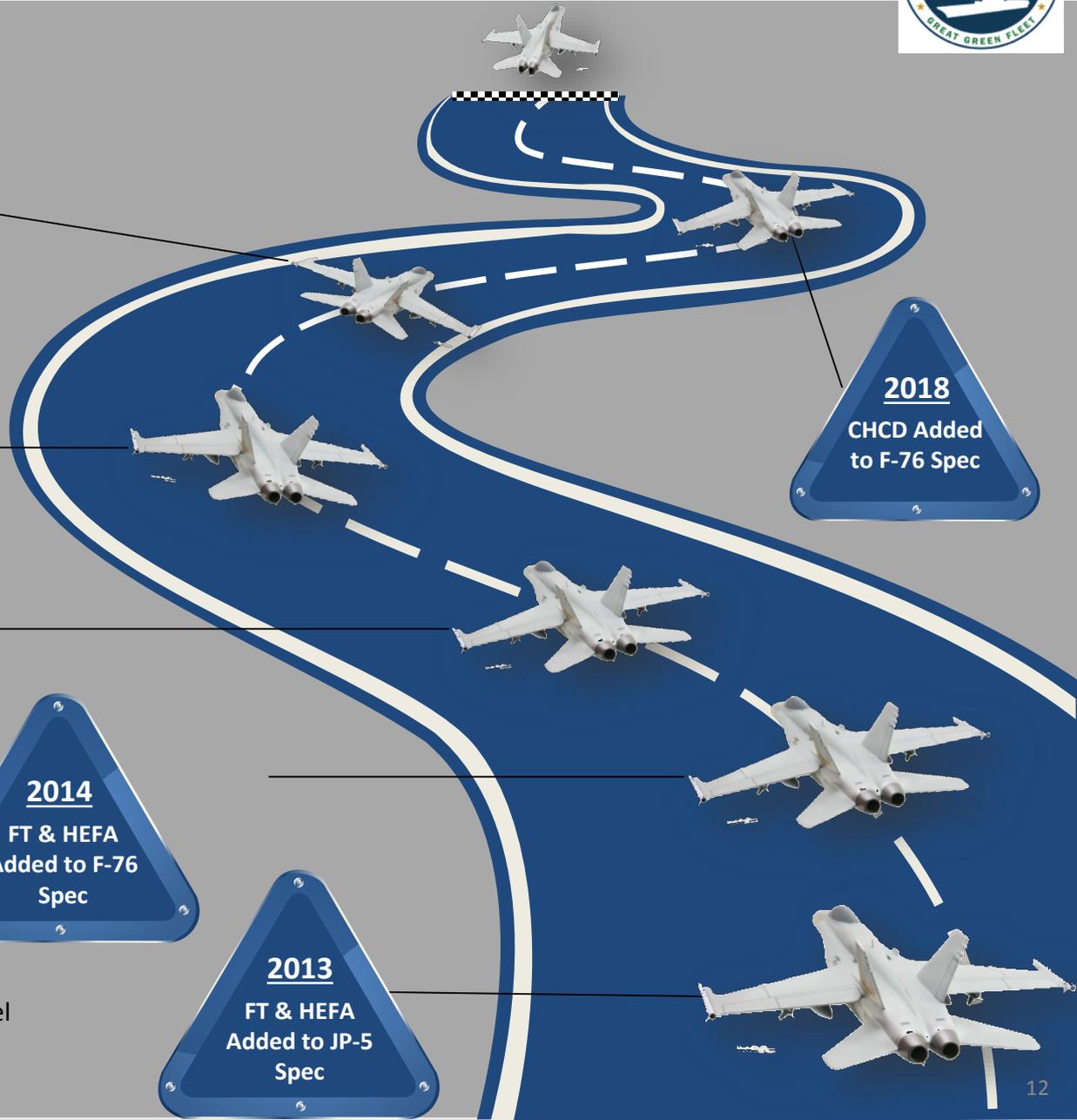
**2013**

FT & HEFA Added to JP-5 Spec

**2018**

CHCD Added to F-76 Spec

FT: Fischer-Tropsch  
 HEFA: Hydrotreated Esters and Fatty Acids  
 SIP: Synthetic Iso-Paraffins  
 ATJ: Alcohol to Jet  
 CHCD: Catalytic Hydrothermolysis Conversion Diesel  
 CHCJ: Catalytic Hydrothermolysis Conversion Jet





## Other Notable Progress



- The market is open. If it's in the MILSPEC, we'll take it. We've made sure the other Services will take it, too.
- To help build new markets for agricultural commodities, USDA makes Commodity Credit Corporation funds available for renewable jet fuel made from USDA-approved domestic feedstocks supplied by U.S. farmers
- International markets are expanding... In RIMPAC, eight of other navies agreed to use alternative fuels during the exercise, and that is just in the Asia-Pacific region. More to follow.



# Maintain Interoperability



# jetBlue



# Synthetic Hydrocarbons in Aviation Fuels

2010: 50%



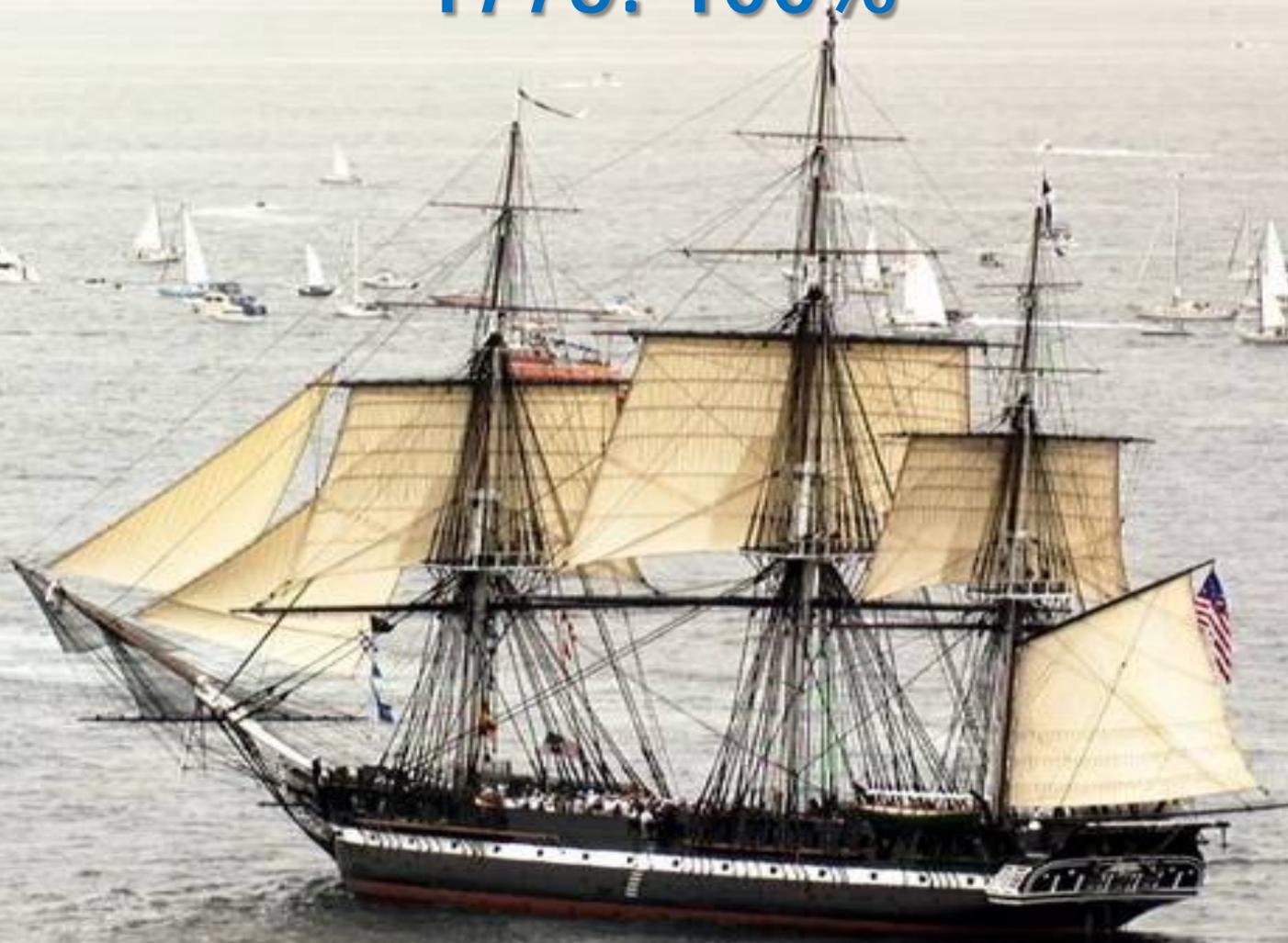
# Synthetic Hydrocarbons in Aviation Fuels

**2016: 100%**



# Renewable Energy in Surface Warfare

**1775: 100%**



# THANK YOU



**F/A-18E**  
**Denali, Alaska**