DEFENSE LOGISTICS AGENCY AMERICA'S COMBAT SUPPORT LOGISTICS AGENCY





DLA Energy Supply-Chaining Alternative Aviation Fuels Within the DoD

Frank Pane Director, Energy Plans & Programs DLA Energy Aug 25, 2010

WARFIGHTER SUPPORT ENHANCEMENT

STEWARDSHIP EXCELLENCE

WORKFORCE DEVELOPMENT

DLA Energy

Mission

To Provide the Department of Defense and Other Government Agencies with Comprehensive Energy Solutions in the Most Effective and Efficient Manner Possible

Vision

Our Customers First Choice for Energy Solutions

Values

- People
- Service
- Excellence
- Innovation
- Trust



DLA Energy Enterprise

Military Fuel FY09

Inventory	59.6M barrels*
Storage Locations	625
Transactions	23.8M
Barrels Sold	129.0M
Fuel Cards	\$829M
Aerospace Energy Sales	\$79.6M

Petroleum Sales: All Customers

FY05 Net Sales	132.5M barrels	\$ 8.5B
FY06 Net Sales	133.9M barrels	\$12.7B
FY07 Net Sales	132.4M barrels	\$12.6B
FY08 Net Sales	132.5M barrels	\$17.5B
FY09 Net Sales	129.0M barrels	\$12.2B
FY10 Estimate	129.0M barrels	\$15.2B

Foreign Military Sales FY09

Net Sales 3.0M bar

3.0M barrels - \$202.2M

Expanding Energy Solutions FY09

National Gas Business	\$292M
Electricity Business	\$863M
Coal Contract Business	\$68.9M
Renewables	\$819K
Estimated U.P. Awards	\$1.2B
multi year awards	

Forward Presence FY09

<u>Co-located:</u> 3 Service Control Points <u>5 Geographic Regions</u>: approx. 254 personnel

Personnel On Board FY09		
Civilians	1,033	
Military	63	

* 42 Gallons = 1 Barrel



"Now, the Pentagon isn't seeking these alternative fuels just to protect our environment; they're pursuing these homegrown energy sources to protect our national security. 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 energyefficient."



Remarks by The President on Energy Security at Andrews Air Force Base, 3/31/2010

Focused Customer Change

Air Force

<u>Army</u>

 AF Energy Plan 2010 – "Increase Supply" Goals By 2016, be prepared to acquire 50% of domestic aviation fuel via alternative blends greener than petroleum Increase facility renewable energy at annual targets Increase non-petroleum-based fuel use by 10% per annum in motor vehicle fleet 	 Army Energy Security Implementation Strategy – 2009 ESG 3: Increased use of Renewable/Alternative Energy ESG 4: Assured Access to Sufficient Energy Supply ESG 5: Reduced Adverse Impacts on the Environment –Established a Tactical Fuel and Energy Implementation Plan Working Group (DLA Energy supporting)
Navy	<u>Other</u>
 Navy Energy Goals, published Oct 2009 Green Strike Group by 2012 Reduce petroleum by 50% in the commercial vehicle fleet by 2015 Produce 50% of shore based requirements from alternative sources by 2020 Supply 50% of total energy consumption from alternative sources by 2020 	 NDAA FY10 Section 334 mandated study Comprehensive assessment of the use of renewable fuels as alternative fuels in aviation, maritime and ground transportation fleets

Alternative Fuel Supply Chain "Pillars"

- Must be a drop-in-replacement fuel
 - Use existing transportation and distribution infrastructure
 - No modifications to weapons platforms
- "Competitive" price
 - Requires Departmental/Service definition (i.e. what is the acceptable premium for "greenness" and/or energy security)
- Environmentally compliant with Section 526
- Complies with existing procurement statutes/regulations

Synthetic Fuel Support

- Fischer-Tropsch (FT) contracts supporting AF platform certification (JP-8)
 - June 2007 315,000 USG Gas-to-Liquid
 - June 2008 60,000 USG Coal-to-Liquid
 - July 2008 335,000 USG Coal-to-Liquid
- FT contracts supporting Navy platform certification (F-76)
 - Sept 2009 20,000 USG Gas-to-Liquid
- Specification exists
 - AF seeking to certify all platforms by 2011

Biofuel Support

- Hydrotreated Renewable Jet (HRJ)-8
 - Camelina & Tallow derived 100,000 gal basic / 100,000 gal option each
- HRJ-5
 - Camelina derived 40,000 gal basic / 150,000 gal option
 - Algae derived 1500 gal total quantity
- HRF-76
 - Algae derived 20,055 gal total quantity
- Army HRJ-8
 - 34,950 gal
 - Awarded 7/26/10.

Alaska Fischer-Tropsch Initiative

- Encourage commercial production of synthetic fuel
 - Feedstock neutral
 - All jet requirements in AK, WA, OR, under 50/50 blend specification
- Lessons learned from industry
 - Feedstock availability challenges
 - Credit availability challenges
 - Requirement size challenges
- Currently on "strategic pause"



Strategic Alliance for Alternative Aviation Fuels



RDML Kurt Kunkel and ATA President and CEO James May sign the Strategic Alliance for Alternative Aviation Fuels agreement Mar. 19, 2010.



AIR TRANSPORT ASSOCIATION OF AMERICA, INC.

Strategic Alliance for Alternative Aviation Fuels

The Department of Defense, Defense Logistics Agency, Defense Energy Support Center (DESC) is responsible for the end-to-end supply chain management of petroleum products for the Department's customer base. The Ai Transport Association of America, Inc. (ATA) is an aintine trade association, representing the nation's leading airlines and a co-founder of the Commercial Aviation Alternative Fuels Initiative (CAAH). DESC and ATA share the goal of advancing the development and deployment of commercially viable, environmentally friendly, alternative aviation fuels. Such fuels support the goal of a citeren energy economy that will promote energy security and asfauguate the health of the environment.

Fostering the growth of alternative aviation fuels production at a commercial eache is difficult for any individual firm or customer. Through a Strategic Aliance, DESC and ATA can inverge our collective purchasing power to encourage suppliers to bring commercial aviation alternative fuels into the market place. The aviation alternative fuels must meet the following criteria:

- Must comply with safety and fuel quality standards in accordance with the appropriate ASTM specification(s) for aviation turbine fuels;
- Must provide environmental benefits, and specifically for DESC, must comply with Section 526 of the Energy Independence and Security Act of 2007;
- Must be a "drop-in" fuel, compatible with the existing fuel storage, transport and logistics infrastructure; and
- Must be economically feasible and potentially competitive with respect to petroleum products.

Through cooperative efforts, DESC and ATA can spur the growth and commercialization of viable alternative aviation fuels. Accordingly, DESC and ATA propose to collaborate on each of these key areas:

- Environment: identifying common methodologies for life cycle assessment of greenhouse gas emissions for alternative aviation fuels, in conjunction with CAAFI;
- Deployment and Logistics: identifying locations or regions suitable for alternative fuels production
 and/or deployment, as well as means of distribution to and from those locations; and
- Contracting and Finance: jointly publicizing supply opportunities, exploring opportunities for complementary fuel supply agreements (recognizing that DESC must compt) with federal procurement rules and regulations in its purchases), and developing compatible pricing and finance mechanisms.

DESC and ATA will establish a Joint Steering Group to direct the activities of the Strategic Alliance, including evaluation of concerns and options that pertain to the efforts and objectives of each team identified above.

KURT L. KUNKEL Rear Admiral, SC, USN Commander Defense Energy Support Cent JAMES C. MAY President and CEO

Air Transport Association of America, Inc.

Vennes C ma Junenan 19 JOVD Date:

Air Transport Association Strategic Alliance

- Shared goal
 - Advancing the development & deployment of commercially viable, environmentally friendly, alternative aviation fuel
- Joint Steering Group established to direct activities
- 3 Collaborative Teams
 - Contract and Finance
 - Environment
 - Deployment and Logistics

GIFTPAC

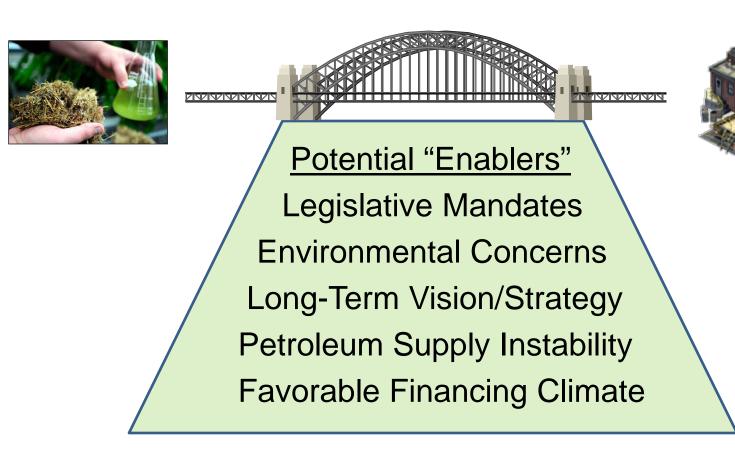
- Green Initiative for Fuels Transition Pacific (GIFTPAC)
 - PACOM initiative
 - Displace at least 25% of the fuel used by the DoD in Hawaii with locally produced "green" fuel
 - Support PACOM energy security requirements by developing organic capability to replace 100% reliance on outside sources
 - DLA Energy as Acquisition Manager
- Request for Information issued
 - Elicit industry interest
 - Sharing of information
- Industry Day Sep 2010

Challenges

- RFS2 Renewable Identification Number
 - Credits only apply to ground fuel, not aviation fuel
- Long Term Contracting Authority
 - DLA Energy-drafted legislative proposal seeks 20 years
- Specifications
 - Services still testing/approving platforms for Fisher-Tropsch specification
 - Hydrotreated renewable biomass specification tracking for 2011 approval
- EISA Section 526 compliance
 - Applies to Government only causes potential market challenges
 - Acceptable life cycle green house gas measurement criteria/methodology



Bridging the Gap



- When is the best time to create this industry?
 - Five years ago is probably a good answer
 - So is "today"



- Continued support of testing & certification efforts
 - Must have approved specifications to solicit
- Continued intergovernmental & private sector collaboration
 - DOE, USDA, DoD, FAA, ATA, CAAFI, others
 - Synergism required to make alternative aviation fuels a reality
- Blue-print to feasible objectives
 - A game of "singles" vs. home runs



QUESTIONS?