



United States Air Force

Energy Program



Energy Vision: Make Energy a Consideration in All We Do
Energy Strategy: Reduce Demand, Increase Supply, Change the Culture

Increasing oil prices impact budgets in homes and businesses throughout the world, and the Air Force has felt a similar strain on its budget for fueling aircraft and vehicles. In your squadrons, during mission planning, on the flightline and backshops, focus on how you and your team can more effectively use the fuel we have and reduce the fuel we need.

AVIATION

Air Force global operations require a tremendous amount of energy—in fiscal year 2006, we consumed almost 2.6 billion gallons of aviation fuel at a cost of over \$5.7 billion. This is a responsibility the Air Force does not take lightly.

Aviation Operations Facts

- Participating in research efforts involving coal, natural gas, and biomass as potential sources of aviation fuel
- Investing in high-fidelity flight simulators enables the USAF to move more training, where appropriate, to simulators
- Partnering with the commercial aviation industry to share fuel management best practices

Increasing Combat Capability through Energy Efficiency

- Implementing ways to reduce fuel demand by purchasing fuel efficient equipment when possible, flying efficiently, and instilling awareness so that energy conservation becomes an integral part of an Airmen's mindset
- Implementing cost effective weight reduction, where mission appropriate
- Building the foundation that will lead to continuous reduction in energy consumption by training and educating the total force to conserve and wisely use energy

SYNTHETIC FUEL

Through the Air Force synthetic fuel initiative, jet fuels made from alternative energy sources, such as natural gas, coal and biomass, are being evaluated for use in military aircraft. This will allow us to reduce our demand on foreign oil while remaining good environmental stewards.

Synthetic Fuel Facts

- A 50/50 synthetic fuel blend has lower SO_x emissions and particulates emissions when compared to traditional petroleum fuels
- The President's Alternative Energy Legislative language includes coal-to-liquids
- There is a growing industry interest in developing production capability

Developing Synthetic Fuels

- By early 2011, certify the entire fleet to use a 50/50 synthetic fuel blend
- By 2016, be prepared to obtain 50% of contiguous United States (CONUS) aviation fuels from domestically produced synthetic fuel blends from domestic sources capturing and reusing CO₂. This equates to approximately 400 million gallons of synthetic fuel.
- Certified the B-52 on 8 August 2007 after completing extensive lab and ground tests
- Purchased 281,000 gallons synthetic fuel in 2007 for continued testing
- Testing of the C-17 and B-1 is underway. C-17 high-bypass engines similar to those in commercial aviation. B-1 tests will initiate an evaluation of afterburner/augmenter engines

Aviation Operations and Fuel Initiatives

Current as of 12 December 2007

For more information on the Air Force Energy Program visit:
<http://www.safie.hq.af.mil>