



## I AM AIR FORCE ENERGY: Your Role in Sustaining an Assured Energy Advantage in Air, Space and Cyberspace

Power the Force. Fuel the Fight.



### Why is Energy Critical to Combat Air Force (CAF)?

- Future conflicts have the potential to limit access to fuel due to cost, availability or enemy interdiction.
- Limited energy supplies will not change the need to achieve the required effects.
- Every Air Force dollar not spent on fuel is a dollar available for other priorities.
- Energy security equals national security and every Airman has a role to play.
- Smart energy use means extended range, longer time on target and transporting more lethal force.

### What is the Air Force Doing?

- Investing in high fidelity simulators that allow pilots to get the experience they need in a realistic environment without consuming fuel.
- Investing in avionics, weapons and countermeasures that make current-generation aircraft more lethal and survivable, increasing legacy platform effectiveness.
- Developing 5th generation systems which are effective and survivable within an A2/AD environment.
- Placing integrated sensors and information-sharing datalinks on the F-35 and future strike aircraft. This removes the need for some C2ISR support aircraft by allowing fewer aircraft to achieve the same effects.
- Certifying all CAF platforms to use alternative fuels. These can be utilized when supplies of fossil fuels are constrained or alternative fuels are more cost effective.

### AIRMEN IN ENERGY



#### Energy Analysis Task Force (EATF)

- 301st Fighter Wing (FW) at JRB Fort Worth partnered with EATF to test fuel efficient descents in F-16s.
- All pilots were briefed to consult the mission computer for the maximum endurance Angle of Attack (AoA) and fly that AoA whenever possible.
- Flight trials demonstrated pilots could save 0.53% of fuel per sortie using the maximum endurance AoA during transition to and from training ranges.
- Incorporation across the F-16 fleet could save more than 900,000 gallons of fuel and \$3.3 Million per annually.

### AIRMEN ACCOMPLISHMENTS



#### Thunderbirds Fly on Biofuels:

- On May 20, 2011, the Thunderbirds performed a full flight demonstration at JB Andrews, Maryland on a 50/50 blend of JP 8 and biofuel derived from plant oil.
- As the first aerial demonstration team that used biofuels, the aircraft showed no difference in performance from traditional petroleum fuel.
- The Thunderbirds flight demonstration was one of many "firsts" accomplished by Air Force in its testing and demonstration of the capabilities of alternative fuels. Other milestones included the first transcontinental flight, the first supersonic flight and the first aerial refueling using alternative fuel blends.

**“Energy is a fundamental component of all Air Force operations. The smart use of energy means flying our aircraft farther, transporting more cargo and accomplishing our mission in a more efficient and effective way.”**

*Deborah Lee James*  
*Secretary of the Air Force*

*Mark A. Welsh III*  
*General, USAF; Chief of Staff*

*James A. Cody*  
*Chief Master Sergeant of the Air Force*

## DO YOUR PART



Optimize mission profiles to maximize time over target or range time.



Train close to home—Utilize the closest range that supports your training.



Train Joint—When possible, train with sister Services to maximize joint training and interoperability.



Minimize weight/drag configurations consistent with mission requirements.



Plan, coordinate and execute air refueling requirements to minimize excess fuel carried by the tanker.



Maximize simulator use.



Land when training is complete. Do not fly to burn off fuel or time remaining.

To submit your energy idea, visit Airmen Powered by Innovation on the AF Portal