

## Facility to Enhance Alternative Fuels Research

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Propulsion

WRIGHT-PATTERSON AIR FORCE BASE, OH -- With a ground-breaking ceremony here the Air Force ushered in a new capability for researching secure, eco-friendly, and renewable fuels. The symbolic excavation marks the start of a significant construction effort that will ultimately yield the Air Force Research Laboratory Assured Aerospace Fuels Research Facility, a resource dedicated to advancing the research of non-petroleum-based fuels and fuel feed stocks that can be produced domestically and in quantities sufficient for satisfying Department of Defense requirements. Ideally, these fuel products will also be environmentally sound and noncompetitive with human food production practices.

Once this unique facility is fully operational, a research team comprising government (military and civilian), contractor, and academic members will use the AAFRF platform to begin producing research quantities (10-15 gal/day) of experimental jet fuels derived from a wide range of alternative fuel feed stocks. Among these intended stocks are coal and various biological sources such as camelina, salicornia, palm, jatropha, soy, algae, waste animal fats, and similarly renewable substances.

As the AF Center of Excellence for the discovery, development, and integration of affordable and environmentally responsible aviation fuel alternatives, AFRL's Energy/Power/Thermal Division has already begun work towards certifying each type of aircraft in the AF fleet to fly on a 50/50 blend of conventional petroleum-based military aviation fuel and synthetically generated fuel. With the addition of the AAFRF facility, researchers will now be able to design aviation fuels from plentiful, alternative, renewable sources as a means of eventually reducing--or even eliminating--dependence on foreign oil.

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