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US Air Force Plans to Certify All B-52s for GTL-Blend Use by End of Year; On the Ground, More Electric Vehicles

27 February 2007

If detailed analysis of flight test data and physical inspection prove out, the US Air Force plans to certify its entire B-52 bomber fleet for use of a GTL-JP8 blend by the end of the year. The Air Force recently concluded its flight and ground tests of the 50-50 GTL (Gas-to-Liquids) blend. ([Earlier post.](#))

Michael A. Aimone, Assistant Deputy Chief of Staff for Logistics, Installations and Mission Support, US Air Force made the statement during testimony before the Finance Committee of the US Senate.

It should be pointed out that we chose a domestic source of SynFuel for our first military aviation demonstration, and this SynFuel was manufactured from natural gas. We recognize that Gas-to-Liquids do not assure the Air Force a dependable supply of jet fuel, since domestic natural gas production is insufficient to meet the Nation's needs.

The production of SynFuel from coal, oil shale and biomass sources would solve this constraint; however, there are considerable technical, environmental, and economic issues that remain to be worked out. We are partnering with the Department of Energy and the Defense Logistics Agency, as well as the Task Force on Strategic Unconventional Fuels mandated by Section 369 of the 2005 Energy Policy Act to explore what can be done in these areas.

—Michael Aimone

The Air Force, which in FY 2006 was the largest green power purchaser of electricity—more than 990,000 MWHrs—in the Federal Government, and 3rd largest in the United States is increasing its efforts to improve its energy efficiency and reduce fuel use.

Thirty seven Air Force Bases in the United States procure green power, according to Aimone, and Dyess AFB in Texas, Fairchild AFB in Washington, and Minot AFB in North Dakota achieve nearly 100% of their electrical energy requirements from wind energy systems located near their installations.

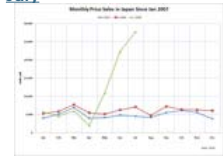
More than 8% of Air Force fuel is B20. Although the Air Force has 4,479 flex-fuel vehicles in the fleet, the refueling infrastructure for that fuel is much smaller. Today, 58 Air Force Bases are dispensing B20, and 16 bases are dispensing E85.

Aimone also said that the Air Force has established a goal to right-size the ground general purpose vehicle fleet. This includes the purchase of at least 30% of the new vehicle requirement as electric Low Speed Vehicles, also known as Neighborhood Electric Vehicles.

With more than 80% of the annual \$7B energy bill going toward fueling aircraft, the Air Force has set a target of reducing aviation fuel use by 10% over the next six years.

We will accomplish this aviation fuel optimization strategy through a series of operational changes by our pilots and aircraft maintenance specialists—some changes are as simple as reducing unneeded weight removed on aircraft. For example, every 100 pounds of excess weight removed from one of our strategic airlift aircraft results in an annual savings of 240,000 gallons of aviation fuel.

From the Dashboard
[Prius Tops Japan Sales for Third Month in a Row in July](#)



The Prius has been the top-selling car in Japan for three months running.

—Michael A. Aimone

Resources:

- [Testimony](#) of Michael A. Aimone, Assistant Deputy Chief of Staff for Logistics, Installations and Mission Support, US Air Force

February 27, 2007 in [Aviation](#), [Biomass-to-Liquids \(BTL\)](#), [Coal-to-Liquids \(CTL\)](#), [Electric \(Battery\)](#), [Gas-to-Liquids \(GTL\)](#) | [Permalink](#) | [Comments \(10\)](#) | [TrackBack \(0\)](#)

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Listed below are links to weblogs that reference [US Air Force Plans to Certify All B-52s for GTL-Blend Use by End of Year: On the Ground, More Electric Vehicles](#):

Comments

Yes! Eco-friendly bombers! Can we turn E-85 into napalm? Condoleeza oughta know about this: what an impact we could make on export policy!

Posted by: Eric | [February 27, 2007 at 06:12 PM](#)

Sounds like the US military is doing some planning for severe shortages of oil in the near future. As for the civilians , it will be re-act and panic when the time comes.

Posted by: Lakewood90712 | [February 27, 2007 at 06:13 PM](#)

And complain about the pols when they can't drive to the corner store in their SUV.

Posted by: Neil | [February 27, 2007 at 07:14 PM](#)

This is probably more of a nod towards domesticating military fuel production, and diversifying military fuel sources. Some of that is simple procurement politics, while some of that is the arguably appropriate military habit of planning for even remote catastrophic risks (i.e. the sort of international disruption that would cut off our energy supplies) that the civilian markets rationally don't spend much time worrying about, because of their remote and improbable nature. If I were a military commander, why would I *not* want to know if I could run my equipment off alternative fuels if the need ever really arose -- which is not to say that I have any special knowledge that the need will soon arise. If I am a congressman with a farm-state constituency, why would I *not* want to urge the military to divert some of their fuel spending away from the oil markets (which goes abroad and props up the prices that unfriendly producers get) and into the biofuels markets, which props up the prices of soybeans and corn?

The day Chevron and Mobil start burning biodiesel in their tanker trucks is the day to sit up and take notice.

Posted by: NBK-Boston | [February 27, 2007 at 09:03 PM](#)

planning for a severe shortages?

Yes

Near Future?

Come on! this is the Military! R&D often takes place 20-30 years prior to something entering service let along widespread adoption.

Given the rate of battery and biofuel technology the private sector will transition

Given the rate of battery and biodiesel technology the private sector will transition away for petroleum in about the same time frame. Nothing to worry about too much, in fact given that this has only started now it's a good implication for how long off peak will be.

Posted by: Mike | [February 27, 2007 at 09:11 PM](#)

The great thing about this fuel is that the sulphur normally found in traditional petroleum distillates is not present. Sulphur is the the component that causes the particulates which are emitted during combustion. The fuel is so clean burning that planes do not leave a sooty trail in the sky. this can be translated into cleaner burning engines on the ground and so forth. With the exception of CO2 the only other byproduct of this combustion is water. CO3 or carbon monoxide is only produced when full combustion is not obtained in the engine. This poison is reduced when a cleaner burning fuel is used in any engine. I see a win for people who care "a bit" more about the air they breath. Let the Government help develop the technology to convert our coal into oil! Someone will find a way to get it to the street. Is it you?

Posted by: bimpster | [February 28, 2007 at 03:17 AM](#)

The military would also like a technology that enables them to manufacture fuel on-site, from local materials or wastes, to reduce the logistical burden. Miniaturized gasification/FT reactors could do that. They've even looked into making jet fuel on nuclear carriers from water and CO2 (obtained from the air or sea water).

Posted by: Paul Dietz | [February 28, 2007 at 09:18 AM](#)

KILL KILL KILL

Posted by: KILL | [March 01, 2007 at 05:28 PM](#)

In Europe, the EU wants cars to have less than 130 g/km of CO2. But they want the industry to get a further 10 g/km reduction from 'greener fuels = bio-diesel, bio-ethanol, bio-methane.

Whilst normal diesel is good for CO2, GTL is VERY BAD (maybe 30% more?).

Surprise surprise that GTL marketing never mentions the well to wheel CO2 emissions from GTL...I wonder why that is then??

Not exactly a product to help get the extra 10 g/km CO2 reduction is it!!

I have 2 words to describe GTL as a vehicle fuel in a CO2 constrained world. FUNDAMENTALLY FLAWED.

Its CRAZY Man, keep the money in the bank or in LNG, building GTL plants unless fuelled by nuclear power (not a great idea in the Middle East) is do-lally.

Exxon worked that out when they cancelled their Qatar project. Am gobsmacked that Shell carrying on with this nonsense. Haven't they heard of global warming????

Taking gas and making it into GTL to use in vehicles when vehicles run happily on gas is mad - like melting pounds down to make 50 p's....

Our friends in Germany leading the way....

Filling stations:

<http://micro.eon-ruhrgas.com/erdgastank/>

Vehicles:

<http://micro.eon-ruhrgas.com/erdgasauto/>

Posted by: John Baldwin | [March 02, 2007 at 03:49 AM](#)

DME developments in China today!

DME is an LPG-like synthetic fuel can be produced through gasification of Biomass. The synthetic gas is then catalyzed to produce DME. A gas under normal pressure and temperature, DME can be compressed into a liquid and used as an alternative to diesel. Its low emissions make it relatively environmentally friendly. In fact, Shandong University completed Pilot plant in Jinan and will be sharing their experience at upcoming North Asia DME / Methanol conference in Beijing, 27-28 June 2007, St Regis Hotel. The conference covers key areas which include:

DME productivity can be much higher especially if country energy policies makes an effort comparable to that invested in increasing supply.

By:

National Development Reform Commission NDRC
Ministry of Energy for Mongolia

Production of DME/ Methanol through biomass gasification could potentially be commercialized

By:

Shandong University completed Pilot plant in Jinan and will be sharing their experience.

Advances in conversion technologies are readily available and offer exciting potential of DME as a chemical feedstock

By: Kogas, Lurgi and Haldor Topsoe

Available project finance supports the investments that DME/ Methanol can play a large energy supply role

By: International Finance Corporation

For more information: www.iceorganiser.com

Posted by: [Cheryl Ho](#) | [May 23, 2007 at 09:38 PM](#)

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