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Science and Technology for Tomorrow's Air and Space Force

Success Story

CANADA TO IMPLEMENT +100 FUEL ADDITIVE



The +100 additive, developed by the Propulsion Directorate's Fuels Branch, minimizes maintenance associated with fuel degradation in aircraft engines and fuel systems. The +100 additive significantly reduces fuel-related maintenance costs for a wide range of military and commercial systems.



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Accomplishment

Canadian Forces recently announced their intentions to convert their ground-based air operations from North Atlantic Treaty Organization (NATO) F-40 (military JP-4) fuel to NATO F-37, also known as JP-8+100 fuel. This shift will make Canada the third NATO member to adopt the +100 thermal stability fuel additive following the lead of the United States and Denmark.

Background

Canada plans to transition from F-40 to F-37 in 2003. At the end of the transition period, current F-40 suppliers in Canada, which include Shell and Petro-Canada, will stop producing F-40/Jet B-type fuel.

Canada is currently putting the infrastructure in place to supply fuel with the +100 additive to aircraft. Their planning provides for various means of injecting the additive into the fuel including injection at the loading rack, on refueling vehicles, or with a portable unit.

However, Canada will not put +100 additive into storage tanks since aircraft not converting to the +100 additive will not be able to use the fuel. Canadian Forces will retain the flexibility to use both fuels. They will provide F-34 (JP-8) without the +100 additive to non-program or transient aircraft and will retain the F-44 (JP-5) fuel for shipboard operations.

Propulsion
Support to the Warfighter

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (03-PR-01)