



On May 11, 2005 Malibu Power & Propeller Int'l of Minneapolis, MN flew the first ever FADEC (Full Authority Digital Engine Control) powered Piper Malibu. The takeoff roll was only 1200ft and the climb rate was almost 2000ft/min, which is large improvement over the standard Malibu. The aircraft uses a Hartzell 3-blade composite propeller and a Continental TSIOF-550 engine that provides more power than a standard non-FADEC engine, due to computer controlled digital mixture control and ignition timing that is used to optimize power as well as safety.

To enhance engine reliability and minimize maintenance, the standard Malibu or Mirage requires constant attention to engine management. Pilot monitoring of engine conditions is critical, especially in the constantly changing departure and approach phases of flight. The FADEC controls allow the pilot to set and forget the engine power, allowing him or her to concentrate on flight procedures, enhancing safety while the engine is treated kindly. The engine will always adjust the mixture and ignition timing to proper settings.

The safety enhancements don't just stop at the engine, there is also an improved electrical system for the aircraft, with a dual bus, dual battery, dual alternator arrangement and emergency bus tie, essentially giving the FADEC system and the other aircraft equipment four power sources. MP&P are also working on both an improved alternate induction air box for icing flight and a single lever power control.

"Our goal for this project has been to simplify the operation of the aircraft, improve performance and most importantly increase safety", said Chad Menne, Product Development Manager for Malibu Power & Propeller. "We use the latest in 3D computer modeling and analysis to optimize structure and airflow performance, as well as speed the design phase and help with certification and production".

Malibu Power & Propeller will offer the STC for the Malibu and Mirage in early 2006.



Malibu M-6