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Researchers complete altitude tests on electronic control system for Navy

The efforts of contractor Pratt and Whitney and Lewis to develop a Full Authority Digital Electronic Control system for the U.S. Navy's YF-401 aircraft engine has resulted in an electronic primary control for testing on an afterburning engine plus an off-engine secondary control for redundancy.

The Lewis Center conducted and completed verifying altitude tests at nine flight conditions for the sys-

tem one and a half months ahead of schedule.

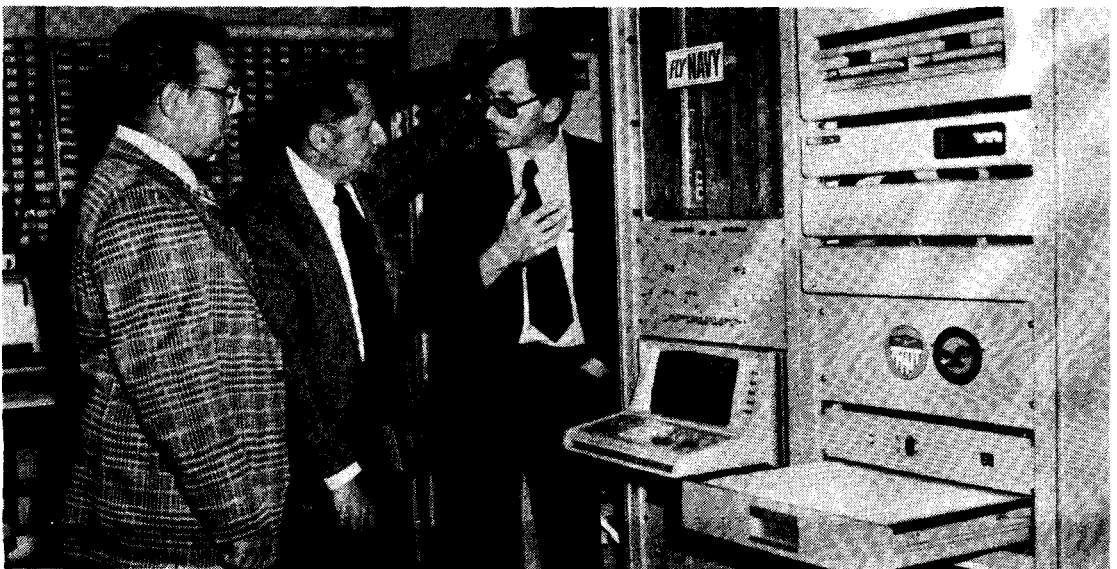
Pratt and Whitney had previously completed sea level tests at its West Palm, Beach, Florida facility.

The new digital control system was in response to an advanced development program aimed at designing, fabricating and testing an engine-mounted, flight-type propulsion control system for use primarily on U.S. Navy fighter planes.

According to Lewis pro-

ject manager Herbert Heppler, the objective of the program was to achieve significant reductions in control system life cycle costs as well as improvements on control function, reliability, environmental compatibility, engine control stability, performance and weight.

The Lewis Center's altitude testing began last May. It marked the first Lewis involvement in a Navy engine program in many years.



U.S. Navy Commander Jack L. Moss (left), Director of Engineering for the Naval Air Propulsion Center, Trenton, New Jersey; Dr. Seymour C. Himmel, Associate Director of Lewis; and Thomas G. Lenox, Pratt and Whitney, technical manager for the Full Authority Digital Electronic Control system, East Hartford, Connecticut, stand in front of an off-engine control for the system. (Don Huebler photo)