GE's UDF flies again

MOJAVE

General Electric's "proof of concept" unducted fan (UDF) engine flew for a second time on August 25 at the Mojave, California, test centre after its inaugural flight five days earlier.

The 16-bladed counter-rotating UDF propfan is pylon-mounted on the starboard side of a Boeing 727-100 test bed aircraft. GE plans to complete 75 hr of test flying by the end of the year. The tests will address a number of questions. "We are lagging behind in counter-rotation because we just do not have the database that single rotation has," Gilbert Sievers, manager of propfan programmes at Nasa's Lewis Research Centre, tells Flight. "The principal concern in propfans is the fuel-saving claims. How realistic are these? Are the cabin noise and vibration levels acceptable? The GE UDF is technically a high-risk programme, but we feel it will be very successful. We have high confidence in it," Sievers continues.

Competing with GE's gearbox-less UDF is the geared propfan which will be tested by Lockheed-Georgia in early 1987 on a Gulfstream II. Lockheed leads a six-company industry team directed by Nasa's Lewis Research Centre.

The Gulfstream will be fitted with a 6,000 h.p. Allison Model 501-M78 engine driving an eight-bladed, 9 ft diameter Hamilton Standard propfan. The powerplant is a Model 570 power section coupled with a modified P-3 Orion gearbox. The Model 570 is a variant of the Allison T701 which was developed for the US Army Heavy Lift Helicopter in the early 1970s.

GE's flight-test programme for this year includes combustor tests, seal tests, and bearing and actuation tests on the variable-pitch fan blades. GE will make fan blade performance and acoustic tests with propulsion simulators at Nasa Lewis, says Bruce Gordon.

The UDF should enter service in late 1991 or early 1992

UDF programme general manager.

In spring 1987 the company will start testing a second UDF on an MD-80. GE is developing an all-new core for the production engine. This should be certificated in December 1990.

- GE's CFM56-5 high-bypass turbofan, the latest offspring of the CFM56 family, flew for the first time on August 26 on a 707 testbed aircraft, also at Mojave. "The first flight lasted 1 hr 23 min, with the engine operating successfully at altitudes in excess of 37,000 ft and at speeds of up to Mach 0-85," says Frank Homan, v-p of CFM International.

Frontier files for bankruptcy protection

DENVER

People Express grounded its loss-making Frontier Airlines subsidiary and, late last Thursday, filed for Chapter 11 protection under US bankruptcy laws for Frontier.

Frontier is due to be sold to United Airlines for $146 million, but United holds out little hope of the sale going through. "The airline we attempted to purchase does not exist any more," a spokesperson says. People Express announced on Wednesday last we knew that formal talks with United had broken off at management level.

The sale has been delayed by a deadlock in negotiations on pilots' pay scales. Frontier's pilots are on a much lower scale than United's and no satisfactory agreement has been reached on how fast they should catch up. United walked out of talks at 2 a.m. on August 25, just 24 hr after Frontier was grounded.

United has already bought $46.7 million worth of assets from People Express, including aircraft and landing slots. These will remain with United. It is unlikely that, with the remaining assets tied up under bankruptcy protection, any more can be sold.

Wall Street analysts are saying that this cuts People Express' own lifeline—the desperately needed cashflow from the sale of Frontier—and casts a shadow over the parent company's survival. People's first half loss this year stands at $132.5 million.

People Express says it grounded Frontier to avoid pouring more money into it and deferred filing for reorganisation under Chapter 11 protection from creditors for as long as possible to assess all the alternatives.

- People has leased eight of its 727-200s to Pan Am initially for 18 months. It had spare capacity after dropping five cities from its network.

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