Williams International

April 13, 2000

Mr. David Bowling
Air Safety Investigator
National Transportation Safety Board
DuPage Airport
31 W.775 North Avenue
West Chicago, IL 60185

Dear Mr. Bowling

On January 6 and 7, a NTSB-controlled disassembly investigation of engines 1277 and 1282 was performed at Williams International in Walled Lake, Michigan. These engines had been installed on a Cessna Citation Jet serial number 525-136. Engine 1277 was installed on the left side and engine 1282 was installed on the right.

The disassembly was performed by employees of Williams International from Product Support and Engineering and witnessed by yourself and Mr. Henry Soderlund of Cessna Aircraft Company.

Engine 1277:

The engine was intact and fully serviced with oil. All chip detectors were clean. There was residual fuel in the fuel delivery system. The engine appears to have been running after impact because of the debris found in the bypass flow path as opposed to the core engine flow path.

The disassembly stretch measurements on the engine shafts were within manual requirements. All rotors in the engine were in good condition. The gearbox was intact and was free to spin.

Fire damage was evident throughout the engine. The spinner tip was melted, the fan stator assembly fell apart during disassembly because the urethane which retains the stator vanes had been melted out due to the fire. There was coke deposits from the fire throughout the core of the engine. The fire had destroyed the exciter boxes.

2280 West Maple Road • Post Office Box 200 • Walled Lake, Michigan 48390-0200 USA • (248) 624-5200

The engine mounts were in good condition. All engine shafts were in good condition. Due to the lack of physical damage, it was not possible to determine the thrust level of this engine at impact.

Engine 1282:

The engine appeared to have tumbled. The gearbox was broken in half, the interstage housing was fractured in various locations. Due to the extent of the damage, the engine had lost its oil. All chip detectors were clean. There was residual fuel in the fuel delivery system.

Tree debris was located in the bypass flow path area indicating that the engine was operating and centrifuging debris outboard. Also, deformation of the HP compressor blades was another source of evidence that indicated the engine was operating at a reasonable power level.

All engine rotors were in good condition except the HP compressor, which had rubbed as it ingested debris.

The engine shafts were in good condition and disassembly stretch measurements were within manual requirements. The engine mount pads were intact.

All hardware received was repackaged and sent to Dotson International, Rantool, Kansas.

Sincerely,

[redacted]

WILLIAMS INTERNATIONAL