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Date: February 13, 2008

Subject: NTSB Identification Number NYC08FA071  
Rolls Royce 250-C30P Engine Disassembly and Inspection

Attendees: Jon Michael, Balinda Reynolds / Rolls Royce, Doug Tate,  
Vic Liberatore / FAA

Date of Accident: December 30, 2007 in Cherokee, Alabama  
Aircraft: Bell Helicopter 206LIII  
Serial No.: 51317  
Registration: N109AE  
Owner: Air Evac EMS Inc.

Engine: Rolls Royce 250-C30P  
Serial No.: CAE 890206  
Engine reportedly had the following times as removed: 5092.0 HRS TSN, 892.0  
HRS. TSO, 9865 CYCLES

Preliminary Inspection:

1. Engine was uncrated
2. Engine displayed obvious signs of fire damage, and was covered with a white powder, possibly fire retardant.

Teardown:

1. Gearbox: The gearbox was completely consumed by fire. Much of the gearbox internal gearing was not present. The centrifugal breather was warped with some of the gear teeth melted.
2. Compressor: The compressor exhibited both impact and severe fire damage. Severity of damage made further disassembly impractical.
3. Turbine: Disassembly found evidence of minor rotational scoring on the second stage and fourth stage nozzles. The scoring was located at the six o'clock position and consistent in both Gas Producer (GP) and Power Turbine (PT) rotor tracking. PT inner shaft nut was found loose, however there was no fretting on curvic coupling.

Douglas Tate  
Principle Maintenance Inspector