



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

# SAFO

Safety Alert for Operators

SAFO 05005  
DATE: 10/25/05

Flight Standards Service  
Washington, DC

[http://www.faa.gov/other\\_visit/aviation\\_industry/airline\\_operators/airline\\_safety/safo](http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo)

*A SAFO contains important safety information and may include recommended action. SAFO content should be especially valuable to air carriers in meeting their statutory duty to provide service with the highest possible degree of safety in the public interest.*

**Subject:** Bell 407 with Rolls Royce 250 series IV engine and Full Authority Digital Engine Control (FADEC).

**Background:** On May 11, 2003, a Bell 407 helicopter was substantially damaged during an autorotative water landing in the Gulf of Mexico, following a loss of engine power while in cruise flight. The airline transport pilot and his three revenue passengers were not injured. The National Transportation Safety Board (NTSB) issued the following recommendation to the FAA: A-04-68. Conduct a review of the emergency procedure training for pilots of helicopters equipped with the Rolls-Royce Model 250 series IV engine to evaluate pilots' propensity to take inappropriate action in response to an inflight failure of the FADEC system and require any necessary changes to emergency procedures and training to better prepare pilots to cope with inflight FADEC failures.

**Discussion:** In cooperation with the manufacturers, the FAA conducted a review of the pertinent training and developed Special Airworthiness Information Bulletin (SAIB) SW-05-70, issued July 21, 2005. That SAIB contains discussion of the FADEC and its characteristics during automatic transition from automatic mode to manual mode. Additionally, the SAIB contains recommendations for operations and effective training for pilots using this equipment. SAIB SW-05-70 may be downloaded at the following FAA public Web site:

<http://www.faa.gov/aircraft/safety/alerts>

**Recommended Action:** Directors of operations, training managers, and pilots involved in operations of the Bell 407 with Rolls Royce 250 series IV engine and FADEC should be aware of the content of this SAFO and of SAIB SW-05-70, and should implement operations and training as recommended in the SAIB.