



Record of NTSB Material Lab findings

Date: December 13, 2017

Time: 2:57 pm

Person Contacted: Mike Budinski, Chief of RE-30, NTSB Materials Laboratory Division

Subject: WPR18FA016 N8537J, Robinson R22 Alpha, Arlington, WA 10/24/2017
Examination of fracture surfaces: swashplate arms and main rotor gearbox

On the above referenced date and time, the IIC submitted pictures of the fracture surfaces for the helicopter's swashplate arms in order to have a visual inspection of the fracture surfaces examined to determine the failure mode of the component. The Chief of the Materials Lab Division subsequently assigned Joe Epperson, an NTSB Senior Materials Laboratory Engineer, to review the pictures and report his findings relative to the failure mode of the component. Mr. Epperson reported that after having viewed the pictures, he didn't see anything suggesting preexisting cracking, and that the fractures looked to be the result of overstress/overload.

On December 14th, after having failed to initially submit pictures of the main rotor gearbox fracture surfaces to Mr. Epperson in my initial email, I called and asked if he could view some pictures of the component while we spoke. Mr. Epperson replied during our conversation that after viewing the fracture surfaces, they appeared to be consistent with those of the swashplate, having failed in overstress/overload, and with no preexisting cracking.

Thomas M. Little
Senior Aviation Accident Investigator
National Transportation Safety Board
Western Pacific Region
Federal Way, Washington



Figure 1- photo 1 of swashplate arms fracture surfaces



Figure 2 - photo 2 of swashplate arm fracture surface



Figure 3 - photo 3 of swashplate arm fracture surface



Figure 4 - photo 1 of main rotor gearbox fracture surfaces



Figure 5 - photo 2 of main rotor gearbox fracture surfaces



Figure 6 - photo 3 of main rotor gearbox fracture surfaces