At about 2010 Western Standard Time on 29th January 2010, a single-engine Pilatus PC-12 aircraft, registered VH-NWO, was being operated on a night medical evacuation flight from Derby to Kununurra, Western Australia with four persons on board. The pilot reported that about 56 km after takeoff, as the aircraft was passing through flight level 180, the engine exhibited a number of problems before the pilot turned the aircraft back to the departure airport. The engine failed and the pilot glided the aircraft to land at Derby. There were no injuries. Subsequent inspection confirmed that the engine propeller reduction gearbox had seized.

Investigation found that four of the six first-stage reduction gearbox bolts had failed due to fatigue. As a result of this failure, and a number of previous similar events, the engine manufacturer commenced its own investigation. That investigation included the review of a number of issues relating to engine overhaul practices. Subsequently, the manufacturer recommended withdrawal from service of an engine from one aircraft in the Australia fleet for examination as part of its investigation.

The manufacturer determined that a quantity of in-service first stage reduction assembly carrier bolts had not undergone cold rolling of the head-to-shank fillet radius during manufacture. As a result, the engine manufacturer issued a number of service bulletins that identified affected gearboxes and provided recommended compliance times for the removal of suspect carrier bolts from service.

A review of the Society of Automotive Engineers (SAE) specification AS7477D found it was ambiguous in respect of the need to cold roll the head-to-shank fillet radius of MS9490-34 carrier bolts. A revised copy of the specification, Revision E, was published by the SAE in October 2011, clarifying the need for cold rolling of the head-to-shank fillet radius of those bolts.