ACCIDENT INVESTIGATION COMMISSION

MEDIA RELEASE

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PNG ACCIDENT INVESTIGATION COMMISSION RELEASES FINAL REPORT ON SUNSTATE Q-400 AIRCRAFT IN-FLIGHT SMOKE/FUMES SERIOUS INCIDENT

The Chief Commissioner of the PNG Accident Investigation Commission (AIC), Mr. Hubert Namani today announced the public release of the AIC's Investigation Final Report regarding an Australian registered (VH-QOE) Bombardier DHC-8-402 aircraft in-flight smoke/fumes Serious Incident, which occurred during an international passenger flight from Port Moresby, Papua New Guinea to Cairns, Australia on 16 March 2020.

Mr. Namani explained that *"The AIC received a notification about the serious incident on the same day soon after the aircraft had returned and landed at Jackson International Airport. The AIC immediately initiated an investigation into this serious incident in accordance with its mandate under the Civil Aviation Act 2000 (As Amended) and pursuant to Annex 13 to the Convention on International Civil Aviation."*

Mr. Namani stated that *"the flight crew identified an unusual smell entering the cockpit which intensified as the aircraft continued climbing and reportedly extended to the cabin. The flight crew commenced the QRH procedure for "Smoke (Warning Light) or Fuselage Fire, Smoke or Fumes" by actioning its RECALL ACTIONS items, donning their oxygen masks, and broadcasting a PAN, to then request ATC for a priority return to Port Moresby. The flight crew landed the aircraft on runway 32R and subsequently exited the runway, stopped at Taxiway Foxtrot and shut down the engines. The cabin crew conducted a precautionary disembarkation with the assistance of ARFF. Passengers were later transported to the airport terminal".*

Mr. Namani stated that the in-flight smoke/fumes event occurred due to the failure of the No.3 bearing carbon seal located at the compressor section of the righthand engine. The carbon seal had fractured allowing oil to leak into the compressor section where air is compressed and routed and bled into the cabin for air-conditioning and pressurization. The leaked oil contacted hot surfaces generating smoke/fumes which contaminated the air being routed into the cabin and cockpit.

The carbon seal was found to have failed at an earlier time than the manufacturer's design intent. The investigation believes that the early carbon seal fracture was primarily due to exposure of the component to high temperature and humidity environmental conditions as it predominantly operated in areas presenting such conditions.

The AIC's report further elaborates on the issue and additionally discusses some other safety related factors. The Final Report of the investigation is available at www.aic.gov.pg