



PNG AIC RELEASES FINAL REPORT INTO SERIOUS INCIDENT NOT INVESTIGATED IN 2015

The Chief Commissioner of the PNG Accident Investigation Commission, Mr Hubert Namani today released the Accident Investigation's Final Report into a serious incident involving a Bell 407 Helicopter at Mt. Strong, Morobe Province.

Mr. Namani said "On 2 May 2015, at about 10:20am the helicopter, registered P2-HSL, owned and operated by Heli Solutions was in the circuit area of the Mt. Strong helipad, at about 11,700 ft. During the approach to the helipad, with an external load of two diesel fuel drums (about 230 kg), the helicopter unexpectedly entered a sudden un-commanded high rate of descent.

"The pilot reported that when the helicopter started to descend his first reaction was to raise the collective to try an arrest the descent, but that action had no effect so he immediately jettisoned the external sling load. He said that following the load release, he saw a caution 'Check Instrument' (CHK INSTR) light illuminated on the annunciator panel and noticed an 'E' light, signifying a gas producer (Ng) turbine exceedance)."

The pilot landed the helicopter safely at Mt. Strong and performed a visual external check of the helicopter with the engine running and rotors turning. The pilot then flew the helicopter to Bereina and refuelled it with the engine running and rotors turning. The pilot picked up one of the loadmasters and positioned the helicopter from Bereina to the operator's maintenance facility at Jacksons Airport, Port Moresby. Following engine shut down, the Ng exceedance was confirmed by engineering personnel. The engine was removed and sent to a Rolls-Royce approved overhaul facility for inspection.

The investigation found that the pilot's assessment of helicopter performance did not provide an adequate positive margin for manoeuvring and unexpected conditions. His assessment of the effects from nearby cumulonimbus cloud and subsequent convective activity, such as downdraughts with localised rainfall, did not consider the possibility of dynamic wind behaviour and its effect on helicopter performance. High-humidity and high-density altitude adversely affect helicopter performance.

Mr. Namani said "the report found that pilot did not follow the corrective action required by the Aircraft Flight Manual to determine the cause of the *CHK INSTR* light illumination which would have indicated the magnitude of the exceedance. The flight manual states to press the 'Instrument Check' button. The pilot also did not comply with the *BHT-407-Flight Manual*, that specifies that applicable maintenance action must be performed before further flight."

The occurrence was not reported to the Civil Aviation Safety Authority by the pilot or the operator, Heli Solutions, in accordance with *Civil Aviation Rules*. It also was not reported to the PNG AIC by the pilot in any form. On learning of the serious incident, the former AIC Board subsequently did not cause an ICAO Annex 13 investigation to be conducted. Instead, the Board commissioned a consultant to conduct an "administrative investigation" into the occurrence. The consultant's report provided to the AIC Board was never filed in the AIC Investigation Report archives, nor was it made public.

Mr Namani said "the current Board, on learning of the 2015 serious incident, immediately commenced an *ICAO Annex 13* investigation as required in the *Civil Aviation Act*. In March 2018, during the investigation another significant Ng exceedance occurrence involving the same pilot and operator was identified that occurred on 5 July 2017. That exceedance occurrence also was not notified to CASA PNG or the AIC".



The AIC report states that the pilot of involved in both occurrences was not a full-time employee of the operator, Heli Solutions, but rather an employee on a part-time contract.

He was a full-time employee of the PNG Government, employed as the CEO of the PNG Accident Investigation Commission. The laws governing his employment with the PNG Government did not allow for him to engage in an aviation business or corporate organisation which operates air services or provides air services in Papua New Guinea.

Mr. Namani said "The AIC investigation found an inconsistency between the *Rolls-Royce Engine Operation* and *Maintenance Manual* and the *Bell Helicopters Flight and Maintenance Data Manuals*. While not causal to the serious incident under investigation it was important to inform Bell Helicopters in Montreal, Canada for the safety of operation of the world fleet of Bell 407 helicopters.

"On 7 August 2018 Bell Helicopters informed the PNG AIC that *Bell is in the process of updating the Bell manuals*." This amendment, as a direct result of the AIC's investigation findings, will be issued to the world Bell 407 helicopter operators and represents a significant safety clarification.

Approved:

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