



PRELIMINARY REPORT

AIC 19 - 1001



ABOUT THE AIC

The AIC is an independent statutory agency within Papua New Guinea (PNG). The AIC is governed by a Commission and is entirely separate from the judiciary, transport regulators, policy makers and service providers. The AIC's function is to improve safety and public confidence in the aviation mode of transport through excellence in: independent investigation of aviation accidents and other safety occurrences within the aviation system; safety data recording and analysis; and fostering safety awareness, knowledge and action.

The AIC is responsible for investigating accidents and other transport safety matters involving civil aviation, in PNG, as well as participating in overseas investigations involving PNG registered aircraft.

A primary concern is the safety of commercial transport, with particular regard to fare-paying passenger operations.

The AIC performs its functions in accordance with the provisions of the *PNG Civil Aviation Act 2000 (as amended)*, and the *Commissions of Inquiry Act 1951*, and *Annex 13 to the Convention on International Civil Aviation*.

The object of a safety investigation is to identify and reduce safety-related risk. AIC investigations determine and communicate the safety factors related to the transport safety matter being investigated.

On 11th August 2019 the AIC was informed by Papua New Guinea Air Services Limited (PNGASL) of an accident involving a Bell 427 helicopter, registered P2-HSG, owned and operated by Niugini Helicopters. The helicopter had crashed into the water.

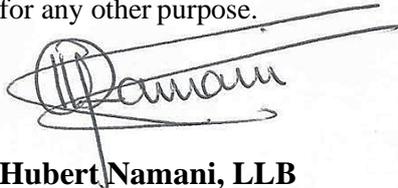
The AIC dispatched a team of investigators to Kimbe, West New Britain Province on 13th August 2019 and commenced interviewing the pilot and the operator.

This *Preliminary Aircraft Accident Investigation Report* was produced by the AIC, PO Box 1709, Boroko 111, NCD, Papua New Guinea. It is publicly released by the Commission in accordance with *Para 7.1 of ICAO Annex 13*. The report is published on the AIC website: www.aic.gov.pg.

The report is based on the initial investigation carried out by the AIC in accordance with the *Papua New Guinea Civil Aviation Act 2000 (as Amended)*, *Chapter 31 of the Commissions of Inquiry Act*, *Annex 13 to the Convention on International Civil Aviation*, and the *PNG AIC Investigation Policy and Procedures Manual*. It contains factual information. Analysis of that information, findings and contributing (causal) factors, other factors, safety actions, and safety recommendations are reserved for the *Final Report*.

The sole objective of the investigation and the *Preliminary Report* is the AIC's obligation to the *Convention on International Civil Aviation* and in accordance with *ICAO Annex 13*, and thereby promote aviation safety. (Reference: *ICAO Annex 13, Chapter 7*). Readers are advised that in accordance with *Section 219 of the Civil Aviation Act 2000 (as Amended)* and *Annex 13*, it is not the purpose of the Commission's aircraft accident investigations to apportion blame or liability. Fact based statements in the report should not be interpreted as apportioning blame.

Consequently, AIC reports are confined to matters of safety significance and may be misleading if used for any other purpose.



Hubert Namani, LLB

Chief Commissioner

5th September 2019

Bell 427 twin-engine helicopter registered P2-HSG impact with water 3.1 nautical miles North West of Baluma township.

Occurrence details

On 11th August 2019, at about 01:24 UTC¹ (11:24 local time), a Bell 427 helicopter, registered P2-HSG, owned and operated by Ballina Limited t/a Niugini Helicopters, was conducting a VFR² ferry flight from Kokopo, East New Britain Province to Kimbe, West New Britain Province, when it impacted the water, over a reef, about 3.1 nm North West of Baluma township.



Source: Spider tracks data

Figure 1: Depiction of accident location in relation to Hoskins airport.

The pilot, the sole occupant of the helicopter, was seriously injured. He was rescued from the accident site at 02:12 by the Operator, with the assistance of local boat owners.

During the investigation interview, the pilot stated that he descended to about 3000 ft and commenced an autorotation³ exercise. Just as he tried to roll out of the flare⁴ at about 1000 ft, the engine torque gauge indicated 'low' and the helicopter did not respond to the power inputs by the pilot. He immediately activated the company's third-party tracking system (Spider tracks⁵) 'SOS' at about 01:04 just before descending through 1000 ft, and broadcast a 'Mayday'.

1 The 24-hour clock, in Coordinated Universal Time (UTC), is used in this report to describe the local time as specific events occurred. Local time in the area of the accident, Pacific/Chuuk Time is UTC + 10 hours.

2 **Visual Flight Rules:** Those rules as prescribed by national authority for visual flight, with corresponding relaxed requirements for flight instruments (Source: *The Cambridge Aerospace Dictionary*)

3 **Autorotation** is a state of flight in which the main rotor system of a helicopter or similar aircraft turns by the action of air moving up through the rotor, as with an autogyro, rather than engine power driving the rotor.

4 **Flare** is the final nose-up pitch of landing aeroplane/helicopter to reduce rate of descent close to zero at touchdown. (Source: *The Cambridge Aerospace Dictionary*)

5 **Spider tracks** is an innovative satellite-based tracking system, combining satellite communication and GPS technology into one simple, cost effective and portable solution.

AIC comment

The investigation is continuing and will include the aircraft, its engines, organisational aspects, safety management systems, regulatory, audit and surveillance aspects, search and rescue coordination and operation, and notifications.

The investigation will also include a detailed accident review of the ATC communications and aircraft recorded data, and flight operational and maintenance records as appropriate.

The investigation analysis and findings will be included in the final report.

Safety Action

At the time of the issue of this Preliminary report, no safety action had been taken.

Recommendations

At the time of the issue of this Preliminary report, no recommendations had been by the AIC.

General Details

Date and time:	11 August 2019, 01:24 UTC	
Occurrence category:	Accident	
Primary occurrence type:	Helicopter ditched in water.	
Location:	3.1 nautical miles North West of Baluma township, West New Britain Province, PNG	
	Latitude: 5 ° 30' 8.5" S.	Longitude: 150 ° 16' 3.1" E

Crew details

Nationality:	New Zealand
Licence type:	PNG CPL H
Licence number:	P21634
Total hours:	6549.0
Total hours in Command:	6120.9
Total hours on type:	346.0

Aircraft Details

Aircraft manufacturer and model:	Bell Helicopters – Textron; Bell 427
Registration:	P2-HSG
Serial number:	56066
Main Rotor blades manufacturer and model:	Bell Helicopters
Main Rotor blades 1 – 4 serial numbers:	A-590; A-577; A-591; and A-585 respectively

Type of Operation, Injury and damage details

Type of operation:	Unscheduled VFR; Ferry	
Persons on board:	Crew: 1 (PIC)	Passengers: Nil
Injuries:	Crew: Serious	Passengers: Nil
Damage	Aircraft destroyed; tail boom separated from main fuselage; main rotor blades destroyed.	

Engine Data

Engine type:	PW207D
Manufacturer:	Pratt & Whitney
Model:	PW207D
Engine number one (Left)	
Serial number:	PCE – BF0157
Total Time since new:	989.10
Cycles since new:	1064
Engine number two (Right)	
Serial Number:	PCE – BF0158
Total Time since new:	989.10
Cycles since new:	1065