

SERIOUS INCIDENT

Aircraft Type and Registration:	Reims Cessna F406 Caravan II, G-RVLX	
No & Type of Engines:	2 Pratt & Whitney Canada PT6A-112 turboprop engines	
Year of Manufacture:	1991 (Serial no: F406-0054)	
Date & Time (UTC):	1 June 2017 at 2015 hrs	
Location:	En route from East Midlands Airport to Kristiansund, Norway	
Type of Flight:	Commercial Air Transport (Cargo)	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to emergency exit door, frame and surrounding structure	
Commander's Licence:	Commercial Pilot's Licence	
Commander's Age:	25 years	
Commander's Flying Experience:	1,543 hours (of which 119 were on type) Last 90 days - 80 hours Last 28 days - 40 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The pilot's emergency exit door opened in flight. This may have been due to the door operating handle being inadvertently disturbed and a secondary safety latch not operating correctly. Several safety actions are being taken by the operator.

History of the flight

Whilst cruising at FL100 a door warning light illuminated. The pilot noticed the P1 emergency exit main handle was slightly away from its locked position and instinctively went to pull the door inwards and the emergency exit handle towards its closed position. Within 1 to 2 seconds the door "popped out with an extremely large amount of force". It remained attached to the aircraft. The pilot declared a MAYDAY and returned to Newcastle without further incident.

Investigation by the operator

The operator conducted an investigation in conjunction with the aircraft manufacturer. This concluded that, whilst checking or operating a portable oxygen bottle, the pilot may have inadvertently disturbed the emergency exit main handle and then, when it was almost overcentre, vibration and the action of a spring in the mechanism caused the handle to move

to the fully open position, illuminating the door warning light. A secondary latch initially held the door closed, but due to low friction in its mechanism and lost motion due to a migrated roll pin in its operating lever, it did not secure the door closed and the door opened into the slipstream.

Safety actions

The operator is taking the following safety actions:

- *An email was sent to all crew to notify them of the event and to highlight correct door operation and security*
- *A fleet check of aircraft fitted with a similar door was carried out to ensure that both primary and secondary locks operated correctly.*
- *Placarding of the secondary handle will be improved to clearly identify when it is the LOCKED position.*
- *A strap will be fitted to the emergency exit main handle to minimise the likelihood of it being inadvertently disturbed.*