REGULATION 28: REPORT TO PREVENT FUTURE DEATHS

	THIS REPORT IS BEING SENT TO: [redacted] **Chief Executive** **Civil Aviation Authority** **Aviation House** **Beehive Ring Road** **Crawley** **West Sussex** **RH6 OYR**
1	**CORONER** I am **PENELOPE SCHOFIELD**, senior coroner, for the coroner area of **WEST SUSSEX**
2	**CORONER'S LEGAL POWERS** I make this report under paragraph 7, Schedule 5, of the Coroners and Justice Act 2009 and regulations 28 and 29 of the Coroners (Investigations) Regulations 2013.
3	**INVESTIGATION and INQUEST** On 28th March 2018 I commenced an investigation into the deaths of Rebecca Dobson, Jason Hill, Stuart Hill, Eleanor Udall, and Jonathan Udall. Their deaths occurred following a helicopter crash over the Grand Canyon on 10th February 2018. This investigation started when these individuals were repatriated back to West Sussex. The investigation was concluded with the Inquests being held on 17th November 2021. At the end of the Inquest, I concluded that all Rebecca Dobson, Jason Hill, Stuart Hill, Eleanor Udall, and Jonathan Udall died as a result of an accident, Following the Inquest, I indicated that I would be making a Regulation 28 report addressing concerns that were raised at the Inquest regarding the risk to passengers who flying in aircraft that have not been fitted with a crash resistant fuel system. The helicopter involved in this accident did not have a Crash Resistant Fuel System (CRFS) and upon impact caught fire very quickly. Rebecca, Jason, Stuart, Eleanor, and Jonathan had survived the crash itself but died from thermal injuries and smoke inhalation as a result of the fire that then ensued.

4	**CIRCUMSTANCES OF THE DEATH** On 10th February 2018, an Airbus Helicopter [redacted], operated by Papillon was taking passengers on an Air Tour of the Grand Canyon. At about 17.19 pm the aircraft crashed. Within a matter of seconds, a fire started and three of the passengers died at the scene. Three others, along with the pilot, were taken to Hospital but sadly two of the three succumbed to their injuries and died shortly thereafter. The pilot and one passenger survived albeit with life changing injuries. The National Transportation Safety Board carried out an investigation and found that the probably cause of the accident was "A loss of tail rotor effectiveness, the pilot's subsequent loss of helicopter control, and collision with terrain during an approach to land in gusting tail wind conditions in an area of potential downdrafts and turbulence." The helicopter in question was not required to be fitted with a CRFS. It should be pointed out that the medical evidence supported the fact that all the passengers were alive following the crash and all of those who died as a result of or from the effects of the fire. None of those who had died had suffered any trauma. The evidence heard at the Inquest supported the fact that had there not been a fire it was more probably than not that they would have survived. It cannot be said for sure in this particular case if the type of the terrain played a part in the penetration of the fuel tank on this helicopter or whether this terrain would have had a similar effect on a CRFS if one had been installed.
5	**CORONER'S CONCERNS** During the inquest the evidence revealed matters giving rise to concern. In my opinion there is a risk that future deaths will occur unless action is taken. In the circumstances it is my statutory duty to report to you. The **MATTERS OF CONCERN** are as follows. – **1. The current requirements are laid out in EASA Certification Specification CS 27-952 for small rotorcraft and CS 29-952 for large rotorcraft, these regulations have been adopted by the UK. These requirements do not appear to be fit for purpose as they do not require retrofit to all previously certified rotorcraft.** **2. EASA issued a safety bulletin No 2017-18R1 (updated on January 2021) this document states "EASA consider that the installation of any of the modifications listed in Table 1 *(of the SIB)* for AS 350/ EC 130 in service aircraft will reduce the risk of post crash-fires and contribute to increase the occupant escape time after survival. However, there is no mandatory requirement for the CRFS to be fitted on aircraft.** **3. Flying in both small and large rotorcraft that have not been fitted with CRFS, either at initial build or as a retrofit, adds significant risk to the occupants in the event of a crash which disrupts the fuel system.** **4. There is nothing in place to mandate the fitting of CRFS as a retrofit and so the risk of post-crash fire in non-CRFS fitted helicopters remains very high with the likelihood of loss of life** **5. For the public there does not appear to be any way of knowing whether a particular aircraft has been fitted with the CRFS as there is no central register which records this. The public cannot therefore make an informed**

	decision as to whether to fly on that aircraft. **6. There are still aircraft flying in UK airspace without CRFS which poses a high risk to occupants of the aircraft.** **7. These aircraft also pose a risk to the general public who could find themselves in close proximity to an aircraft that has crashed where a fire occurs.** **8. Serious consideration needs to given to the issuing of an airworthiness directive to prevent further tragedies, similar to this case happening again.**
	ACTION SHOULD BE TAKEN In my opinion action should be taken to prevent future deaths and I believe your organisation have the power to take such action.
7	**YOUR RESPONSE** You are under a duty to respond to this report within 56 days of the date of this report, namely by **13th January 2022**. I, the coroner, may extend the period. Your response must contain details of action taken or proposed to be taken, setting out the timetable for action. Otherwise you must explain why no action is proposed.
8	**COPIES and PUBLICATION** I have sent a copy of my report to the Chief Coroner and to the following Interested Persons: - [redacted] Airbus Helicopters Papillon Airways Air Accident Investigation Branch. I am also under a duty to send the Chief Coroner a copy of your response. The Chief Coroner may publish either or both in a complete or redacted or summary form. He may send a copy of this report to any person who he believes may find it useful or of interest. You may make representations to me, the coroner, at the time of your response, about the release or the publication of your response by the Chief Coroner.
9	**Date 18th November 2021**  **Penelope Schofield, Senior Coroner** **WEST SUSSEX**