




**Katie Sutherland,            Acting  
Senior Coroner for North West Wales**

	<p><b>REGULATION 28 REPORT TO PREVENT FUTURE DEATHS</b></p> <p><b>THIS REPORT IS BEING SENT TO:</b></p> <p>The Rt. Honourable Ben Wallace, Secretary of State for Defence, Ministry of Defence</p>
1	<p><b>CORONER</b></p> <p>I am Katie Sutherland, Acting Senior Coroner for North West Wales</p>
2	<p><b>CORONER'S LEGAL POWERS</b></p> <p>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.</p>
3	<p><b>INVESTIGATION and INQUEST</b></p> <p>On 22/03/2018 the Senior Coroner commenced an investigation into the death of Jonathan Harvey Bayliss, aged 41. The investigation concluded at the end of the inquest on 3<sup>rd</sup> December 2021. The conclusion of the inquest was a narrative.</p>
4	<p><b>CIRCUMSTANCES OF THE DEATH</b></p> <p>At 13:25 on 20<sup>th</sup> March 2018 a Royal Air Force Aerobatic Team (RAFAT) or "Red Arrows" Hawk aircraft TMk1/1A, tail number [REDACTED], crashed on the airfield at RAF Valley whilst conducting a routine training exercise or sortie, which specifically included the performance of a Practiced Engine Failure After Take Off (PEFATO) manoeuvre.</p> <p>The aircraft had two persons on board, the pilot in the front cockpit and the engineer in the rear cockpit. The pilot ejected 0.52 seconds before impact, sustaining a major injury. The engineer, Corporal Jonathan Bayliss, did not eject and could not be ejected by the front seat-initiated ejection system and was declared dead at the scene.</p>
5	<p><b><u>CORONER'S CONCERNS</u></b></p> <p>During the course of 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.</p> <p>The <b>MATTERS OF CONCERN</b> are as follows. –</p> <p>As identified by the Service Inquiry the cause of the crash was the aircraft stalling with insufficient height to recover. It was also recognised that the aircraft may in certain circumstances stall without pre-stall buffet. The pre-stall buffet remains the warning sign to the pilot of an impending stall. The Service Inquiry recommended that urgent investigations be undertaken into the incorporation of an artificial stall warning capability in the Hawk Mk 1 to provide sufficient warning to pilots during low speed low altitude manoeuvring. Whilst a feasibility assessment and cost benefit analysis have been undertaken a final decision is yet to be made as to whether or not the recommendations will be adopted. The current out of service date for the said aircraft is at least 2030. A number of RAF Aerobatic Team pilots will be flying every year (including a small number of new arrivals each year) and some circus engineers are still being flown in the said aircraft.</p>

	<p>It was recommended by the Service Inquiry that the Hawk TMk1/1A simulator training accurately reflects an aerodynamic model of a RAF aerobatic aircraft with smoke pod fitted, given that this may soon become the only Hawk Mk1/1A operated by the RAF and the current training simulator did not have the effect of a smoke pod fitted. Whilst there are developments in this respect there is no new synthetic trainer in place as yet.</p>
6	<p><b>ACTION SHOULD BE TAKEN</b></p> <p>In my opinion action should be taken to prevent future deaths and I believe that you have the power to take such action.</p>
7	<p><b>YOUR RESPONSE</b></p> <p>You are under a duty to respond to this report within 56 days of the date of this report, namely by 1<sup>st</sup> February 2022. I, the coroner, may extend the period.</p> <p>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.</p>
8	<p><b>COPIES and PUBLICATION</b></p> <p>I have sent a copy of my report to the Chief Coroner and to the following Interested Persons</p> <ol style="list-style-type: none"> <li>1. Family</li> <li>2. [REDACTED]</li> <li>3. [REDACTED] via Irwin Mitchell Solicitors</li> <li>4. MOD (including RAF)</li> </ol> <p>I am also under a duty to send the Chief Coroner a copy of your response.</p> <p>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.</p>
9	<p>Dated 7<sup>th</sup> December 2021</p> <p>Signature <u></u></p> <p>Acting Senior Coroner for North West Wales</p>