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**Australian Government**  
**Civil Aviation Safety Authority**

LEGAL, INTERNATIONAL AND REGULATORY AFFAIRS

CASA Ref:  
Your reference: COR 2022 001771

20 November 2024

Coroner David Ryan  
C/- Coroners Court of Victoria  
65 Kavanagh Street,  
Southbank, Victoria, 3006

By email: [team14@courts.vic.gov.au](mailto:team14@courts.vic.gov.au)

Dear Coroner Ryan

**Response to Coroner's Recommendation Finding Into Death Without Inquest – Dean Neal-Mount Disappointment**

We refer to Coroner Ryan's findings dated 31 March 2022, and the recommendation directed to the attention of the Civil Aviation Safety Authority (**CASA**).

CASA has completed a detailed review of the findings and recommendation, and welcomes the opportunity to provide this update to the Coroner in respect of each of the recommendations:

**Recommendation 1**

CASA amend CASR (Part 133) to introduce a mandatory instrument flying component (including recovery from IIMC events) to the requirements for a commercial pilot licence for helicopters carrying passengers, together with a requirement for such training to be included in proficiency checks conducted by operators.

**Response:**

Consistent with CASA's response to the ATSB investigation and submissions made during the course of the Inquest, CASA's position in relation to Instrument Flight (**IF**) training for helicopter pilots flying under the Visual Flight Rules (**VFR**), is that education and decision-making skills remain the primary safety mitigator for avoiding Inadvertent Instrument Meteorological Condition (**IIMC**) accidents. Most of the civil helicopters registered in Australia are not appropriately equipped

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and certified for flight under the Instrument Flight Rules (**IFR**). This means that they may only be safely operated under the VFR which requires pilots to navigate and control the aircraft by visual reference to features outside the cockpit. In the Australian context, most helicopter operations are operated under the VFR, so the equipage of the aircraft meets the operational needs.

In February 2018, CASA undertook public consultation on a proposed mandatory requirement of basic instrument flying for the grant of a helicopter category rating for the granting of private pilot or commercial pilot licences. Industry consultation and feedback indicated that, requiring basic instrument flying training and instruction would impose high costs on candidates and operators with no tangible or appreciable evidence of risk reduction. The consensus being that far more could be accomplished in the way of safety mitigation by providing ongoing education and training in pilot decision making. It was also identified that providing basic IF training could lead to an increased risk of pilots having a higher tolerance for the risks of flying into Instrument Meteorological Conditions (**IMC**) on the basis they believed their training would allow them to safely navigate in such conditions when that was not the case.

The risks of day VFR qualified pilots (even those with basic aircraft attitude control instrument flying proficiency) flying into IMC, have recently been highlighted by the ATSB in the final report for safety occurrence investigation [AO-2023-052](#). This report highlights the complexity of being competent to fly in IMC even after basic IF training, in an aircraft equipped for flight into IMC (in this case a fixed-wing aircraft) with an autopilot. The pilot still became spatially disorientated resulting in a high rate of descent into terrain.

Appropriately equipped aircraft can be navigated and controlled by reference to instruments and displays inside the cockpit by fully trained instrument rated pilots. However, as noted above, the majority of the civil helicopter fleet are not equipped to operate under the IFR. In the absence of the proper IFR instruments and displays, when external visual cues are not available due to lack of light or obscured vision, pilots are subject to illusions generated by the sensory systems which humans use to orient themselves in space. Vision is a very strong cue to spatial orientation. Pilots must learn to trust the instruments, regardless of what they are perceiving at any time. Controlling an aircraft by reference to instruments only, requires a pilot to develop a robust instrument scanning technique that is consistently repeatable, and which includes the ability to interpret and act upon instrument indications that may conflict with the body's sensory perceptions.

Flying solely by reference to instruments is a complex skill, subject to rapid decay unless practiced regularly and, when combined with poor decision making, can be fatal. This was highlighted in the fatal accident involving the famous US basketballer, Kobe Bryant, in January 2020. The pilot in that incident was very experienced and had over 70 hours instrument flight time (mostly in simulated conditions) and the accident aircraft was an IFR equipped helicopter. Notwithstanding that the pilot was not appropriately certified for IFR flight, they pushed on in poor weather on a VFR flight and eventually entered cloud becoming spatially disoriented, leading to the controlled flight into terrain ([Accident report](#)).

The majority of Australian civil registered helicopters are also only single-engine types and the Civil Aviation Safety Regulations, do not permit single engine helicopters to fly in IFR conditions or VFR at night with passengers being carried for hire or reward. CASA considers that these restrictions already serve to limit the risks associated with IFR or night VFR conditions.

Single main rotor helicopter models are inherently unstable, both statically and dynamically, and these aerodynamic qualities demand that a helicopter that is intended for use in instrument

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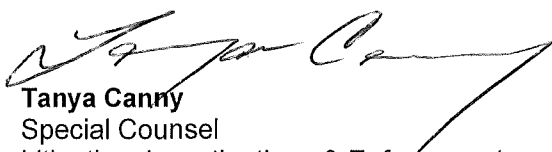
conditions must also be equipped with a stability augmentation system (SAS) / autopilot at a minimum, to supplement the instruments needed to fly under IMC. Without a SAS or autopilot, a pilot facing a sudden loss of visual references would be forced to immediately transition to instruments without the additional assistance these systems give to maintain pitch, roll and yaw control. This leaves the pilot in the invidious position of having to safely execute a complex skill which they are not qualified for and have not practiced regularly in an aircraft intended only for VFR flight which is not equipped with the instruments and SAS necessary to assist the pilot to maintain control.

While CASA clearly supports measures for the reduction of these types of accidents, internal evaluation and consultation with industry concluded that, requiring helicopter pilots to acquire minimal instrument flying skills, is not a safe or effective option in view of the matters raised above. CASA will continue to provide educational material to not only pilots, but aircraft operators as well, on decision making skills and appropriate weather avoidance procedures. Across 2025 and 2026, CASA will also introduce new requirements for training and checking systems for helicopter operators as well as Human Factors and Safety Management Systems. These new requirements will enhance the systems-based approach to better prepare pilots for the decision-making skills needed to meet the operational challenges they will face.

CASA strongly believes that avoiding IIMC events altogether, is the best strategy to prevent these types of accidents. Helicopters have the unique capability to do this with their ability to land in many places an aeroplane cannot. CASA has also publicly stated that, it will not take any enforcement action against pilots who decide to make a precautionary landing to avoid entering IMC, as long as it is conducted as safely as possible under the circumstances.

For the reasons set out above, CASA is not presently intending to amend the CASR to introduce a mandatory instrument training component for a commercial pilot helicopter licence. CASA will however, conduct a review of overseas practices in regards to the merits of air transport operator training systems incorporating IIMC events during recurrent training.

Yours sincerely



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