Bulletin Correction

AAIB File:	AAIB-30943
Aircraft type and registration:	Robinson R66, G-WBRN
Date and Time (UTC):	11 June 2025 at 0714 hrs
Location:	Chalfont St Peter, Buckinghamshire
Information Source:	Aircraft Accident Report Form

AAIB Bulletin No 02/2026, page 19 refers

Following publication of this report, the AAIB was made aware that a video recording of the accident existed taken from a factory-fitted airborne audio and image recorder located within the helicopter cabin. The content of the recording, which had not been made available to the AAIB during the investigation, showed that the published report did not properly reflect the circumstances of the accident. The investigation was re-opened to correct the record and to enable the publication of safety information related to VFR flight into IMC.

Report Title

Original title:

> Robinson R66 (G-WBRN), rollover during precautionary landing, Chalfont St Peter, Buckinghamshire, 11 June 2025

Amended title:

> Robinson R66 (G-WBRN), loss of control in flight, Chalfont St Peter, Buckinghamshire, 11 June 2025

Synopsis

Original text:

> During a planned VFR flight from Denham Airfield the pilot of a Robinson R66 encountered low cloud shortly after departure. The pilot was not qualified in instrument flying and unintentionally entered IMC around 700 ft agl, leading to spatial disorientation. Attempts to regain VFR conditions by climbing were constrained by controlled airspace. With thickening cloud and a lowering cloud base, the pilot decided to return to Denham. The helicopter broke cloud over fields and the pilot decided to make a precautionary landing. The landing was heavy, resulting in the helicopter rolling over. The pilot was uninjured, but the helicopter was significantly damaged. A section of blade tip was propelled nearly 180 m, embedding itself in a wisteria attached to the wall of a house.

Amended text:

> G-WBRN entered IMC at around 400 ft after departure. The autopilot was engaged initially but was disengaged subsequently after which the pilot lost control of the helicopter. It emerged from the bottom of the cloud in an extreme attitude, rolled level and entered a rapid yaw to the left, which continued until it struck the ground and rolled over. The pilot was uninjured, but the helicopter was significantly damaged.
>
> The pilot was not qualified to fly on instruments alone, and an opportunity to turn around was missed when the weather encountered after takeoff proved to be as forecast. There appeared to be confusion about autopilot modes and the autopilot was disengaged, leading to the loss of control.

History of the flight

Original text of the first paragraph:

> The pilot owner of a Robinson R66 planned for a regular flight from Denham Airfield, Buckinghamshire, to a private airstrip near Wellesbourne, Warwickshire. The helicopter was refuelled the night before and was positioned out of the hangar ready for an early morning departure.

Amended text:

> The pilot of G-WBRN, a Robinson R66 helicopter, planned for a regular flight from Denham airfield, Buckinghamshire, to a private airstrip near Wellesbourne, Warwickshire. The helicopter was refuelled the night before and was positioned out of the hangar ready for an early morning departure.

Original text of the second paragraph following Figure 1 on page 20 to the end of the History of the flight:

> The helicopter departed Runway 06 turning left over some lakes and routed north toward one of the visual reporting points for the airfield. The cloud base was not as imagined when viewed from the ground. The pilot was being pushed lower to try and maintain VMC, and he soon found himself intermittently entering cloud at around 700 ft agl with fleeting glimpses of the ground. He was starting to become disorientated and was surprised to find himself now on a westerly heading.
>
> At 900 ft agl and now IMC the pilot reported initiating a climb to see if he could get VFR on top of the cloud, but he was conscious that he was constrained by the base of the London TMA. He entered a climbing left turn, but after climbing an additional 300 ft the cloud was getting thicker and so he decided to descend and turn south to go back to Denham. The pilot was disorientated and increasingly anxious with the developing situation.

The helicopter was now in a descending left turn with an increasing rate of descent (Figure 2). The pilot had intermittent sight of the ground, broke cloud at a low height, and arrived in a "disorganised state" over some fields next to a paddock with outbuildings. He decided to make a precautionary landing.

The helicopter rolled over on landing. The pilot was uninjured in the accident, shutting off the fuel and electrics before exiting the helicopter. Total flight time was just under five minutes.

Amended text:

The following narrative was written by reference to video taken from a factory-fitted cockpit audio and video recorder.

The helicopter departed Runway 06 and began to turn left over some lakes at approximately 400 ft agl, but the pilot reported that the cloud base was not as he had imagined when viewed from the ground. Visual references began to deteriorate at about 250 ft agl and the helicopter entered cloud at around 500 ft agl, climbing at 500 to 700 ft/min and still in a slow left turn, which it continued onto a heading of approximately 330°M. The pilot engaged the autopilot[1] by pressing the STABILITY AUGMENTATION SYSTEM (SAS) mode button on the autopilot control panel. He then selected heading hold (hdg) and altitude hold (alt) modes, and the helicopter stabilised at 600 ft agl (approximately 800 ft amsl) and 85 kt. The pilot had a tablet device positioned on his lap which he frequently referenced for route navigation, and he incrementally moved the heading bug clockwise onto a target heading of 360°M. The helicopter followed the command to turn right.

The pilot stated that he initiated a climb to see if he could get VFR on top of the cloud, but he was conscious that he was constrained by the base of the London TMA. With the autopilot engaged, he pressed and held the trim[2] button when the heading was 345°M and placed the helicopter into a 1,500 ft/min climb. The helicopter climbed 400 ft (to approximately 1,200 ft amsl) and began to turn slowly left, reaching a heading of 268°M, while the pilot incrementally moved the heading bug to the right, onto approximately 045°M. During this climbing turn, the speed reduced to 34 kt, with the hdg and alt modes disengaging as the speed decelerated through 44 kt. The trim button was released and the autopilot re-trimmed in primary sas mode and corrected the helicopter to a steady attitude, adopting an initial heading of 274°M and gradually accelerating back to 85 kt. As the helicopter accelerated, the pilot again made incremental clockwise changes to the heading bug position, eventually reaching 160°M. However, the helicopter's heading drifted slowly left to 245°M.

Footnote

1 G-WBRN was fitted with a Genesys Aerosystems HeliSAS, which is described later in the Autopilot section.
2 The TRIM button removes forces from the cyclic control and temporarily suspends SAS operation.

The pilot stated he was becoming a little disorientated and was surprised to find himself now on a westerly heading, not northerly. He had made several heading bug selections on the Primary Flight Display (PFD) after glancing down at his tablet, but the helicopter had not turned and so he pressed the sas button, which disengaged the autopilot system.

The helicopter pitched to 15° nose-up, climbed 250 ft, to approximately 1,450 amsl, and slowly banked left to 35° angle of bank (AOB). The nose then dropped below the horizon, and the helicopter entered a descending left turn. With a 25° nose-down attitude and 50° left AOB the pilot attempted to re-engage the autopilot, selecting SAS, HDG and ALT modes. Approximately five seconds later, the helicopter emerged from the base of the cloud at approximately 600 ft agl with a 2,000 ft/min rate of descent and an audio warning: "WARNING TERRAIN TERRAIN" (Figure 2).

The pilot rolled level and pulled up, the hdg and alt modes disengaged leaving the SAS mode light green, and the helicopter entered cloud again, pitching to 60° nose-up. The pilot pressed the SAS button again, which disengaged the autopilot system. The helicopter rolled right to approximately 170° AOB, the nose dropped rapidly, and the helicopter emerged from the base of the cloud near inverted at approximately 450 ft agl with 3,000 ft/min rate of descent (Figure 3).

The helicopter rolled level with the pilot applying full power, but the main rotor RPM quickly fell below 80%, probably due to overpitching[3]. The pilot had been thrown to the left when the helicopter rolled inverted causing his left foot to push forward on the yaw pedal and it remained in that position as the helicopter entered a rapid yaw to the left. The yaw continued until the helicopter struck the ground in a field next to a paddock with outbuildings. A plan view of the flightpath is shown in Figure 4.

The subsequent impact with the ground was heavy. The skids were splayed and flattened, and the cross tubes that run laterally under the fuselage were fractured with the clamps deformed. The left skid that contacted the downward part of the slope collapsed, acting as a pivot point for the helicopter to roll over.

The main rotor blade struck the ground with high energy, chopping off the tail rotor and propelling a 70 cm section of blade tip, weighing 4.5 kg, nearly 180 m over a main road and a petrol station canopy and into a wisteria attached to the wall of a house (Figure 5). There was no damage caused to the house.

Footnote

[3] Overpitching: when the pilot raises the collective control lever, the pitch angle of the main rotor blades increases, increasing lift and drag. If the pitch is increased too much, the drag increases to a level such that the engine cannot maintain rotor rpm.

The total flight time was just under five minutes, and it was 58 seconds from the time the autopilot was disengaged (prior to the helicopter pitching to 15° nose-up and climbing 250 ft) until the helicopter struck the ground.

Figure 6 shows a sequence of images of the instrument panel during the loss of control described above.

Meteorology

Original text of the first two paragraphs:

The flight was planned to be conducted within Area C and D of the Metform 215 (F215) Low Level Significant Weather Chart (Figure 3). The F215 chart covers a wide area and conveys the most likely meteorological conditions for the period. Guidance states that it is good practice to consult with observations along the route to obtain the fullest picture.

The high pressure system sitting over the UK was giving rise to areas of low cloud around the departure airfield which was due to lift and break. At the time of departure London Heathrow Airport (Heathrow), which is 10 nm from Denham, was reporting conditions as overcast cloud between 400 and 500 ft agl. RAF Northolt, only 3.5 nm from Denham, was reporting broken cloud between 500 and 800 ft agl.

Amended text:

The flight was planned to be conducted within Areas C and D of the Metform 215 (F215) Low Level Significant Weather Chart (Figure 7). The F215 chart covers a wide area and conveys the most likely meteorological conditions for the period. Guidance provided by the Met Office states that it is good practice to consult with observations along the route to obtain the fullest picture.

The high pressure system sitting over the UK gave rise to areas of low cloud around the departure airfield that were due to lift and break. At the time of departure London Heathrow Airport (Heathrow), which is 10 nm from Denham and at an elevation of 83 ft, was reporting conditions as overcast cloud between 400 and 500 ft agl. RAF Northolt, only 3.5 nm from Denham and at an elevation of 115 ft, was reporting broken cloud between 500 and 800 ft agl.

Aircraft departing Runway 06 at Denham, route via the Maple Cross VRP, which is at an elevation of 165 ft, with terrain elevation up to 350 ft between the airfield and VRP.

The final paragraph at the bottom of page 22 is deleted.

Consideration must also be given to the low flying rules by not flying closer than 500 ft to any person, vessel, vehicle or structure once the takeoff is completed.

Applicable regulations and local rules

A new section is added following *Meteorology*:

> In the UK Standardised Rules of the Air, SERA.5001 gives '*VMC and distance from cloud minima'*. To remain VMC in Class D and G airspace (the classes of airspace through which G-WRBN flew), helicopters must remain clear of cloud, in sight of the surface, and with a flight visibility of 3 km (Class D) or 1,500 m (Class G).
>
> The Rules of the Air (Amendment) Regulations 2005 contain regulations on '*Low Flying'* in regulation 5, and these regulations require aircraft to fly no closer than 500 ft to any person, vessel, vehicle or structure. The regulations also prevent aircraft from flying over congested areas below a height of 1,000 ft above the highest fixed obstacle within 600 m of the aircraft; and below a height that would permit the aircraft to land clear of the congested area following a loss of power.
>
> Within the Denham Local Flying Area (LFA) (that part of the ATZ that lies within Class D airspace), aircraft are normally limited to 1,000 ft amsl, to allow a margin of error against the maximum altitude of the LFA, which is 1,200 ft amsl.

Aircraft

A new section is added following *Applicable regulations and local rules*:

> The Robinson R66 helicopter is approved for VFR day and night operations only. G-WBRN had a factory fitted cockpit camera system and an optional Genesys HeliSAS autopilot installed.
>
> *Cockpit camera*
>
> The cockpit camera is forward mounted in the roof lining and records 4K video, intercom audio, radio communication and GPS position. The data is stored both internally and on a removable flash drive located in the front of the camera housing. The internal memory records the most recent three hours of video and is not user accessible.
>
> *Autopilot*
>
> The Genesys Aerospace HeliSAS autopilot system provides 2-axis stability and autopilot functions. The autopilot's primary mode is as a Stability Augmentation System, which maintains a steady attitude for the helicopter through inputs to the cyclic in the pitch and roll channels. This is felt by the pilot as a light centering force on the cyclic control. The system does not provide collective or yaw flight control inputs, which must be manually controlled by the pilot. When the SAS is engaged, additional autopilot modes maybe layered on top, such as heading hold and altitude hold.

The POH states:

'The autopilot is intended to enhance safety by reducing pilot workload. It is not a substitute for adequate pilot skill nor does it relieve the pilot of the responsibility to monitor the flight controls and maintain adequate outside visual reference.'

The HeliSAS control panel is located on the main instrument panel below the PFD. It consists of a row of buttons and corresponding annunciator lights. A dark annunciator indicates that the mode is off, white indicates that the mode is in standby or armed, and green indicates that the mode is engaged (Figure 8).

On power-up and after performing a self-test, the SAS enters standby mode and the SAS annunciator is a steady white. SAS can be engaged by pressing the SAS button on the control panel or by pressing the TRIM button on the cyclic for 1.25 seconds. On SAS engagement, angles of less than 10° in pitch and roll will be held. If the pitch or roll angle is larger, the system assumes the helicopter is in an unusual attitude and gently levels the helicopter. When engaged, the SAS annunciator turns green. Additional modes are selected by pressing the appropriate button with the annunciator light indicating green when the mode is engaged.

Modes are disengaged using the appropriate button on the control panel or the AP OFF button on the cyclic control. If using the AP OFF button with additional modes engaged, the first push will disengage those modes and another push will disengage the SAS. Disengagement of SAS is accompanied by four headset beeps. There are no beeps for intentional disengagement of additional modes. The system will automatically revert to primary SAS mode and disengage any additional modes at airspeeds below 44 kt or above 140 kt. Automatic disengagement of additional modes is accompanied by a single headset beep.

The system is designed to allow the pilot to 'fly through' the autopilot, overriding the force applied to the cyclic control to allow the pilot to manoeuvre without disengaging the system. The trim button is then used to re-trim the SAS to a new datum attitude.

The POH states:

'The autopilot is not certified for flight in Instrument Meteorological Conditions (IMC). Adhering to appropriate VFR weather minimums is essential for safety.

If an inadvertent loss of outside visual reference occurs, the pilot must regain visual conditions as quickly as possible while avoiding abrupt, disorienting maneuvers. The following procedure is recommended:

1. *If not already engaged, immediately engage autopilot SAS mode and allow autopilot to recover from unusual attitude if one has occurred.*

2. *Select heading and altitude to ensure terrain and obstacle clearance. Turns and/or climbs may be required. Engage additional autopilot modes as desired for workload reduction.*
3. *While maintaining terrain and obstacle clearance, maneuver toward conditions of improved visibility.'*

Training

The HeliSAS system is optional equipment and there is no specific training required for the award of a type-rating.

VFR flight into IMC

Original text:

When a pilot unqualified in instrument flying unintentionally enters IMC when on a VFR flight, spatial disorientation may occur. The pilot is unable to correctly interpret the aircraft's attitude, altitude or speed. Control inputs may be made based on false perception, leading to a loss of control.

Research into spatial disorientation for pilots that are not instrument qualified, showed that loss of control will likely occur between 60 seconds and 178 seconds on average after losing visual references. An analysis of helicopter accidents and incidents in the UK between 2000-2010 showed that 68% of inadvertent VFR flight into IMC resulted in a fatal accident.

The CAA has published guidance for general aviation pilots in their Safety Sense Leaflet 33 - *'VFR Flight into IMC'* on how to avoid and respond to such a scenario. It states:

'If the weather is closing in all around, consider a precautionary landing in a field – it may seem like an extreme option that could result in damage to the aircraft, however this is preferable to experiencing a loss of control accident, which is normally fatal.'

Amended text:

The pilot did not hold an Instrument Rating. Research into spatial disorientation for pilots that are not instrument qualified, showed that loss of control will likely occur between 60 and 178 seconds, on average, after losing visual references. An analysis of helicopter accidents and incidents in the UK between the years 2000 and 2010 showed that 68% of inadvertent VFR flight into IMC resulted in a fatal accident.

The CAA has published guidance for general aviation pilots in Safety Sense Leaflet 33, *'VFR Flight into IMC',* on how to avoid and respond to such a scenario. The aim is to retain control of the aircraft and exit IMC:

> *'**Stay in Control:** Transition to instrument flight. Focus on the attitude indicator and make small corrections to maintain heading and altitude. Trust your instruments. Avoid making large control inputs or power changes. Ensure the aircraft is in trim. If the aircraft has an autopilot, engaging it will allow you to retain control of the aircraft and free up capacity for situational awareness.'*

The CAA has also published Safety Sense Leaflet 17, *'Helicopter Airmanship', and* Aeronautical Information Circular P 137/2019, *'Helicopter flight in degraded visual conditions'.* The AIC was issued as part of an education campaign to provide '*guidance on the problems and hazards associated with flight in degraded visual conditions'.* The AIC discusses the meaning of flight '*with the surface in sight'* and considers helicopter stability and the nature and sufficiency of visual cues. It states that three main scenarios, alone or in combination, may result in an accident:

> 'a) Loss *of control when attempting a manoeuvre to avoid a region of impaired visibility;*
>
> *b) Spatial disorientation or loss of control when transferring to instrument flight following an inadvertent encounter with IMC;*
>
> *c) Loss of situ*ational awareness resulting in controlled flight into terrain.'

Precautionary landing

This section is deleted:

> The pilot emerged from the base of the cloud and regained sufficient visual references to make a precautionary landing. The area immediately in front was a paddock with horses and so the pilot manoeuvred to an adjacent field. This field was overgrown, uneven and with a marked slope.
>
> The landing was firm and the helicopter rolled over. The main rotor blade struck the ground, and a 70 cm section of blade tip was propelled nearly 180 m over a main road and a petrol station canopy before embedding itself in a wisteria attached to the wall of a house (Figure 4).

Analysis

Meteorology

Original text:

> The pilot believed from his ground observation that conditions had improved. A check of actual observations from aerodromes in the locality would indicate this was not the case, with both Heathrow Airport and RAF Northolt reporting extensive low cloud.
>
> Denham Airfield is at an elevation of 215 ft amsl, which is higher than Northolt (126 ft amsl) and Heathrow (83 ft amsl). Northolt was reporting broken cloud between 500 and 800 ft agl, indicating that the cloud base in the locality of Denham was likely to be between 400 and 700 ft agl.
>
> Given the built-up area and terrain elevation around Denham, the weather conditions in the locality were not compatible with the requirements of VFR flight, as set out in the Skyway Code.

Amended text:

> The Met Office was forecasting isolated areas of scattered or broken cloud in Area C of the Metform 215, which included Denham Airfield, with a base of between 700 and 1,200 ft amsl and with the top forecast to be 1,500 ft amsl. Although the pilot believed from his ground observation that conditions were suitable for flight, the actual weather observations from aerodromes in the locality indicated this would probably not be the case, with both Heathrow Airport and RAF Northolt reporting extensive low cloud. Denham Airfield is at an elevation of 215 ft, which is higher than Northolt (126 ft) and Heathrow (83 ft). Northolt was reporting broken cloud between 500 and 800 ft agl, indicating that the cloud base in the locality of Denham was likely to have been between about 400 ft and 700 ft agl (615 ft and 915 ft amsl).
>
> With terrain elevation up to 350 ft along the route towards the Maple Cross VRP, it is unlikely that the weather conditions in the locality permitted flight clear of cloud and with the surface in sight, while also maintaining 500 ft separation from any person, vessel, vehicle or structure. The decision to fly in those weather conditions, therefore, carried with it a significant risk of VFR flight into IMC. The numerous congested areas locally would also have made it difficult to route around the lowest cloud while remaining more than 1,000 ft above obstacles in those congested areas.

Spatial disorientation

This section is deleted:

> Spatial disorientation can lead to a loss of control in as little as one to three minutes, and accidents following a loss of control are often fatal. The pilot recognised he was disorientated and felt increasingly anxious at his worsening situation. His decision to make a precautionary landing was in accordance with CAA guidance.

Landing

This section is deleted:

> Having experienced the stress of inadvertent VFR flight into IMC, the pilot regained sufficient visual references with the ground for a precautionary landing. He states that he arrived in a "disorganised state" and made a rushed assessment of the landing area. The chosen field was overgrown, uneven and with a slope.
>
> The landing was heavy. The skids were splayed and flattened, and the cross tubes that run laterally under the fuselage were fractured with the clamps deformed. The left skid that contacted the downward part of the slope collapsed, acting as a pivot point for dynamic rollover to occur.
>
> The main rotor blade struck the ground with high energy, sufficient to propel a section of blade tip weighing 4.5 kg nearly 180 m. There was no damage caused to the house.

VFR flight into IMC

A new section is added after *Meteorology*:

> On departure from Denham the cloud base was lower than the pilot expected, and the video recording showed that visual references were starting to deteriorate from about 250 ft agl. The opportunity to immediately return to the airfield was not taken and the pilot continued to climb until all visual references were lost at around 500 ft agl. With the helicopter now in IMC, the decision to engage the autopilot with SAS, HDG and ALT modes stabilised the situation and allowed the pilot to maintain control of the aircraft. This was in line with the guidance in the POH and CAA Safety Sense Leaflet 33.

Use of the autopilot

A new section is added after *VFR flight into IMC*:

> The pilot stated that his intention was to climb to see if he could regain VFR conditions, but this was unlikely to have been successful because he was limited to an altitude of 1,200 ft within the LFA and the top of the cloud layer

was forecast to be at 1,500 ft amsl. The autopilot remained engaged as the pilot 'flew through' the system using the TRIM button, and when selecting the climbing attitude the pilot introduced a small angle of bank to the left. There was no input on the collective control to increase power for the climb and so the speed reduced. As the speed reduced, the helicopter yawed to the left, adding to the roll to the left.

At 44 kt the hdg and alt modes automatically disengaged but this did not appear to have been recognised by the pilot. The SAS mode remained engaged. On releasing the trim button, the attitude was approximately 20° nose-up and with 10° AOB. The SAS assumed the helicopter was in an unusual attitude and gently levelled the helicopter, allowing it to accelerate. The increased yaw and the slight AOB to the left probably accounted for the change in heading from 274°M to 245°M. During this period, the pilot repeatedly moved the heading bug clockwise, eventually reaching 160°M, but the helicopter did not follow the heading command because hdg mode was not engaged. The pilot appeared to recognise that the heading was not following the command but did not appreciate the reason, and this confusion is likely to have contributed to the disorientation that he reported and the surprise he reported at finding the helicopter heading west, not north. Frequent reference to the tablet on his lap – looking down and then ahead again – would also have added to any spatial disorientation the pilot may have been experiencing. It would also have reduced his ability to effectively scan the helicopter's flight instruments – Safety Sense Leaflet 33 emphasises the importance of the attitude indicator – to monitor and control the flightpath, something that is important regardless of whether an autopilot is engaged.

Loss of control

A new section is added after *Use of the autopilot:*

In what appeared to be an attempt to correct the situation, the pilot pressed the SAS button once, and the annunciator turned white to indicate the autopilot system had disengaged. The subsequent flightpath of the helicopter, described earlier and exemplified in Figures 2 and 3, included high nose-up and nose-down attitudes, and AOB up to almost 180°. During this period, the pilot glanced at his tablet and tried to engage the autopilot even with the helicopter in a nose-low, high AOB attitude, and with a high rate of descent while close to the ground. It appeared to be the sight of the ground (Figure 2) that re-orientated the pilot briefly, leading him to reduce the AOB and enter a climb. However, once in cloud again, there was a further loss of control, leading to the final accident sequence.

When a pilot unqualified in instrument flying enters IMC when on a VFR flight, spatial disorientation is likely to occur. Without training on how to conduct an effective and systematic instrument scan, pilots are unlikely to correctly interpret the aircraft's attitude, altitude or speed to enable them to control the flightpath.

Control inputs are likely to be made based on false perceptions, leading to a loss of control in between 60 and 178 seconds. It appeared likely that this accounted for the erratic flightpath of G-WBRN and the subsequent loss of control, which occurred 58 seconds after the autopilot was disengaged. The situation would have been made worse by a lack of training in instrument flying, confusion about autopilot modes, and periodic glances away from the flight instruments towards the tablet and autopilot controls.

Conclusion

Original text:

> The weather in the locality of Denham airfield was unsuitable for a planned VFR flight. Soon after departure the pilot entered IMC and suffered spatial disorientation. Faced with a deteriorating weather situation, the pilot decided to return to Denham. The helicopter broke cloud close to the ground and the pilot made a rushed precautionary landing into a field that was overgrown and with a slope. The landing was heavy, and the helicopter suffered dynamic rollover.

Amended text:

> The weather in the locality of Denham Airfield was, at best, marginal for VFR flight and soon after departure the helicopter entered IMC. The autopilot was engaged and the pilot attempted to climb to regain VMC. The pilot referred frequently to the tablet on his lap and tried to control the helicopter's heading using the autopilot, apparently unaware that the correct mode had not been selected. When the autopilot, including the SAS, was disengaged, the pilot was unable to control the helicopter using flight instruments alone. The helicopter emerged from cloud in an extreme attitude, rolled upright but then yawed rapidly to the left until it struck the ground and rolled over.
>
> The following factors probably contributed to the loss of control:
>
> - A decision to fly when the weather forecast was, at best, marginal for VFR flight.
> - A missed opportunity to descend and turn around when deteriorating visual references immediately after takeoff confirmed the validity of the weather forecast.
> - A lack of training in instrument flying.
> - Confusion about autopilot modes.
> - Frequent reference to a tablet and selection of autopilot controls, which were a distraction to monitoring flight instruments and controlling the flightpath.

Images

The following images were added, and the Figure numbers in the text were adjusted accordingly:

Figure 2
Terrain warning

Figure 3
Emerging from base of cloud nearly inverted

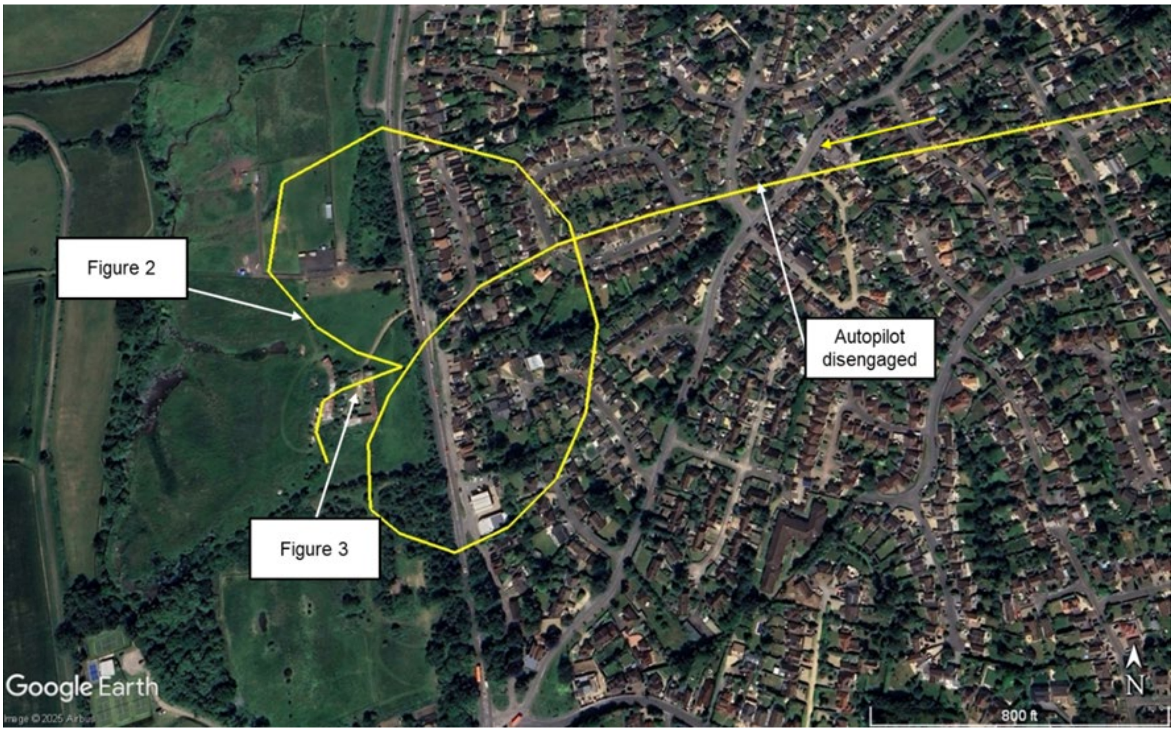

Figure 4
ADS-B flightpath data from FlightAware

Figure 6

Loss of control sequence of events

Figure 8

HeliSAS control panel

The online version of this report was corrected on 19 May 2025.