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# ***AAIB Bulletin***

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***7/2026***

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Published: 9 July 2026.

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ISSN 0309-4278

Published by the Air Accidents Investigation Branch, Department for Transport

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## **AAIB Field Investigation Reports**

A Field Investigation is an independent investigation in which AAIB investigators collect, record and analyse evidence.

The process may include, attending the scene of the accident or serious incident; interviewing witnesses; reviewing documents, procedures and practices; examining aircraft wreckage or components; and analysing recorded data.

The investigation, which can take a number of months to complete, will conclude with a published report.



## Serious Incident

<b>Aircraft Type and Registration:</b>	Boeing 767-316F, G-DHLS	
<b>No &amp; Type of Engines:</b>	2 General Electric Co CF6-80C2B6F turbofan engines	
<b>Year of Manufacture:</b>	2012 (Serial no: 42213)	
<b>Date &amp; Time (UTC):</b>	9 October 2025 at 1841 hrs	
<b>Location:</b>	Scottish Flight Information Region	
<b>Type of Flight:</b>	Commercial Air Transport (Cargo)	
<b>Persons on Board:</b>	Crew - 2	Passengers - 1
<b>Injuries:</b>	Crew - None	Passengers - None
<b>Nature of Damage:</b>	None	
<b>Commander's Licence:</b>	Airline Transport Pilot's Licence	
<b>Commander's Age:</b>	47 years	
<b>Commander's Flying Experience:</b>	8,968 hours (of which 670 were on type) Last 90 days - 22 hours Last 28 days - 11 hours	
<b>Information Source:</b>	AAIB Field Investigation	

## Synopsis

During a flight from Iceland to the UK, it was likely that ice formed somewhere on the aileron control system causing a jam in roll control. The crew were still able to control the aircraft longitudinally and descended to FL200. A significant, joint, input by the crew on the controls released the jam and normal roll control was regained. The rest of the flight was completed without further incident.

The Boeing 767 has experienced previous occurrences of roll control jams due to ice formation. Several modifications and inspections have been mandated due to previous events, all of which had been completed as required on G-DHLS before this event.

## History of the flight

The aircraft had arrived in Keflavik Airport, Iceland around 10 hours before it was due to depart on the incident flight. The outbound cargo consisted of fresh goods surrounded by frozen sealed gel packs on pallets. These pallets were loaded onto the aircraft ready for the departure which was scheduled at 1655 hrs. The flight departed Keflavik at 1707 hrs with the co-pilot as PF and the first 1:30 hours of the flight proceeded without incident. As the aircraft was approaching to the west of Glasgow at FL350, the EICAS caution for the Autopilot activated. At the same time the crew were instructed to turn onto a radar heading by ATC. The PF selected heading mode on the autopilot but the aircraft did not turn as expected and again the EICAS Autopilot caution activated. The PF selected a different

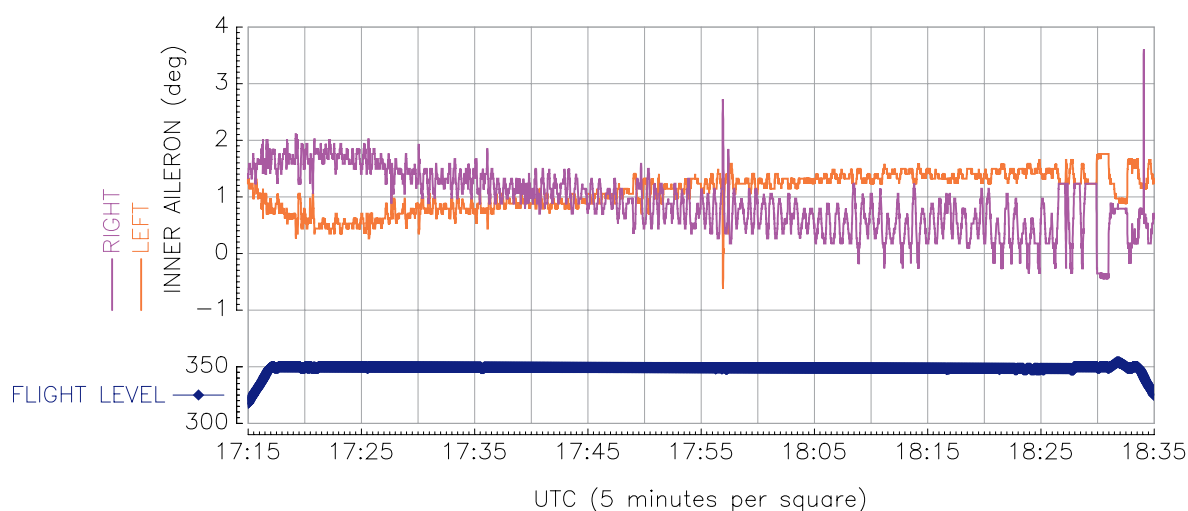
autopilot, but this also did not result in the aircraft turning onto the required heading. The PF then disconnected the autopilot but discovered that there was little, if any, movement of the control wheel in roll. Neither crew member had any roll control through the control wheel, although they had normal control of the aircraft in pitch and yaw. The commander made a MAYDAY call to ATC and requested a descent down to FL200.

During the descent, the crew discussed the Quick Reference Handbook (QRH) for jammed controls. The commander instructed the jumpseat passenger, who was also a pilot, to check that the circuit breakers accessible from the cockpit had not tripped off, with nothing found. Having levelled at FL200, the crew performed the actions required by the QRH which was to overpower the jammed or restricted system using maximum applied force. Both pilots moved the control wheel to the left with force at the same time. The co-pilot described feeling like something broke and immediately the roll control returned to normal.

The crew then re-engaged the autopilot and continued to East Midlands Airport where they landed without further incident.

### Recorded information

Figure 1 plots the inner aileron deflection, with the autopilot on, recorded on the flight data recorder, for the 75 minutes the aircraft was at FL350. Prior to this period and during the 52 hours of recorded data from the previous 22 flights, both ailerons moved in equal but opposite amounts about a nominal position. However, Figure 1 shows that at the beginning of this period, the right aileron was starting to move more than the left aileron, and this differential in movement grew to over four times the amount by the end.



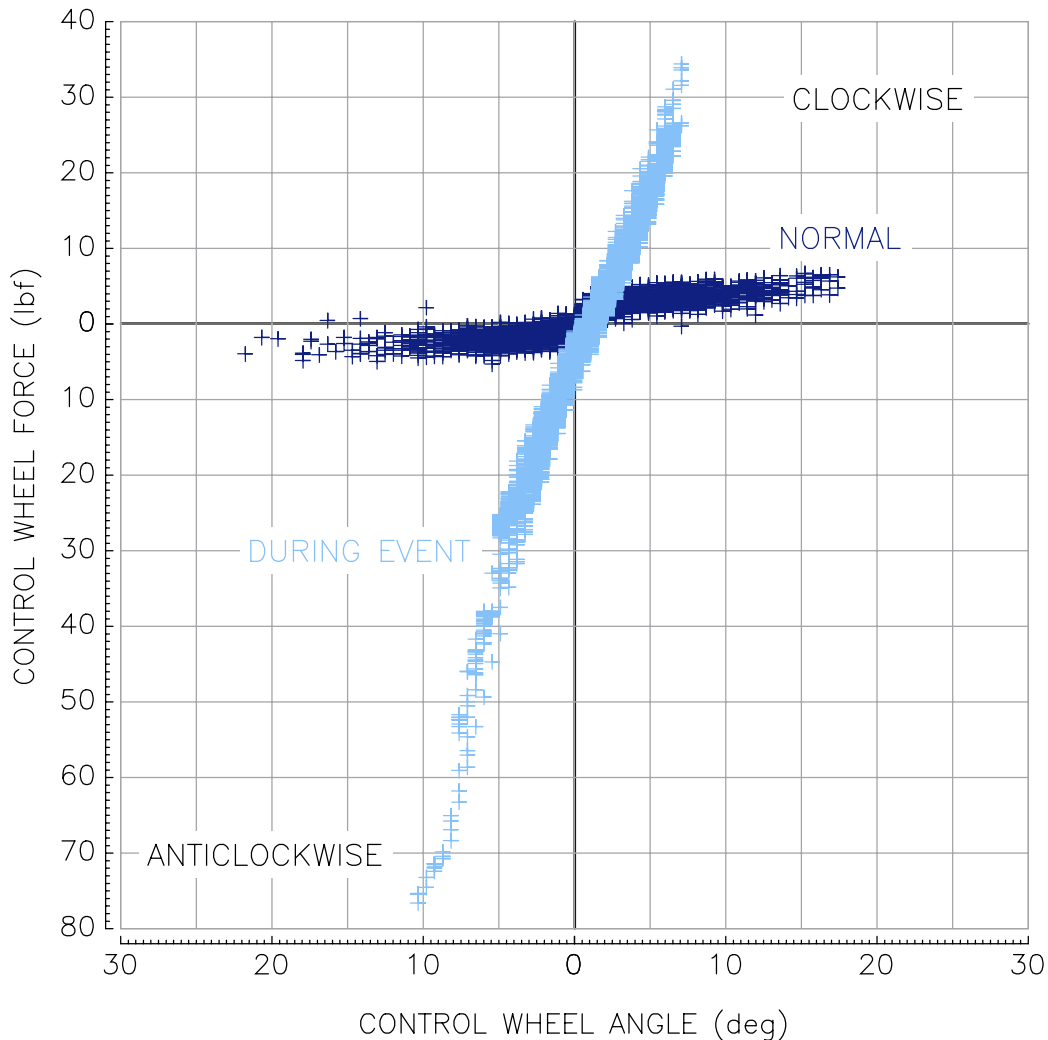
**Figure 1**

Inner aileron deflection during flight while at FL350

Figure 2 plots the force applied to the control wheel versus the angular movement of the control wheel with the autopilot off. The dark blue points (labelled 'NORMAL') are for the previous 22 flights and the light blue points (labelled 'DURING EVENT') are for the event

flight during the descent from FL350 to FL200. The figure shows that the force required to move the wheel during the event was 15 times more than 'NORMAL'.

The maximum recorded force was 76.6 lbf after which the force required to move the wheel returned to those in the 'NORMAL' region.



**Figure 2**

Control wheel force versus control wheel angle

### Meteorology

The weather in Keflavik during the period between the arrival of G-DHLS and its departure was largely wet with rain and drizzle. The temperature reached a maximum of 9°C with the dew point matching the temperature from 1500 hrs onwards. The crew commented that the majority of the pallets had been loaded before they reached the aircraft to prepare for the flight but that the remaining ones were wet from the rain when they were loaded.

The OAT at FL350 was -54°C and the temperature at FL200 once they had descended was -15°C.

## Aircraft information

G-DHLS was originally built in 2012 as a Boeing 767-300 (B767) passenger aircraft. It was purchased by the operator in 2023 and converted to freighter configuration. The aileron control system on the B767 is a mechanical system consisting of control cables with hydraulic power assistance. The design incorporates multiple control path redundancies to mitigate the risk of individual components jamming.

### *Aileron system – normal operation*

The B767 has inboard and outboard ailerons which are operated by control inputs either manually by the pilots or from the autopilot. There are two manual control wheels in the flight deck which can rotate up to 65° left or right. The left control wheel in the flight deck is connected to the upper of two cable drum assemblies under the floor; this assembly is then replicated for the right control wheel. The two upper cable drums are connected by a bus rod and in normal operation, move together. There is a force transducer on the left wheel's cable drum which measures the force being applied by the pilots on the control wheels. Beneath the upper cable drums are lower cable drums. The left side operates the primary control cables, which run underneath the main cargo deck along the left side of the fuselage. The right side lower drum operates a second set of backup control cables, which run down the right side of the fuselage, under the main deck. The primary and backup control cables then turn through 90° and pass through the canted pressure deck under the floor. The primary cables exit into the left main gear wheel well and the backup cables into the right wheel well.

There are multiple aileron control components mounted on the rear face of the wing spar, in the wheel wells and along the back of each wing to the inboard ailerons. There are two sets of ailerons. The inboard ailerons are always active in flight. The outboard ailerons lockout above a set airspeed. The primary cables terminate at the left control quadrant in the left gear well, there is also a right quadrant in the right gear well. The quadrants are connected by a set of cables called the aft bus input cables. In normal operation the primary cables drive both the right and left quadrants through this connection.

The left quadrant is attached to a control feel, centering and trim system. This returns the control wheel to centre once a control input is removed, it allows the pilots to trim the centre position of the control wheel, and it also provides a resistive force on the controls. As the pilot's control input increases in magnitude, the resistive force increases proportionally to give the pilots a sense of feel to the controls, replicating what would exist without hydraulic assistance, but scaled down to an appropriate level.

The control quadrants on each side are connected respectively to torque tubes, these have input rods which connect to the input servos of three hydraulic actuators called Lateral Central Control Actuators (LCCAs). There are two actuators attached to the left torque tube called the left and centre LCCAs, the right LCCA is attached to the right torque tube. The LCCAs also receive an input from the three respective autopilot channels. When the autopilot provides the control inputs, the pilot's controls are back driven to move as well. The hydraulic output of the LCCAs moves output quadrants, one on the left and one on the right.

The left and centre LCCAs are connected to the left quadrant. This arrangement allows either of these LCCAs to independently drive the left output quadrant. The left quadrant is also attached via the aft power bus cables to the right output quadrant, to drive that as well. The right output quadrant is connected directly to the right LCCA. Right and left wing cables are attached to the right and left quadrants respectively. These run along the rear wing spar via droop mechanisms to the ailerons. Each aileron has two hydraulic Power Control Actuators (PCA) one on each of the separate hydraulic systems. The wing cables drive the servos for these actuators; the output then moves the aileron surface itself. Either PCA can independently move the aileron if required. There is also a position transmitter on each aileron.

In normal manual operation the two LCCAs on the left system drive the left wing cables directly and the right wing cables via the aft power bus cables. Similarly, the right LCCA can achieve this in the opposite direction. As such, all the ailerons can be moved by any one of the three LCCA's independently, which is the case when the LCCA output is controlled by an autopilot channel.

#### *Aileron system – abnormal operation*

The upper control drums below the pilot's control wheels are connected by a bus rod. There are load limiters fitted to both sets of drums which consist of a cam, follower and spring. If the left control wheel jams, once the difference in force being applied to the right control wheel exceeds 26 lb (11.8 kg) the cam follower will unseat, allowing the right control wheel to move just the backup control cables rather than the primary cables. If the right control wheel jams, above this force the left wheel will move separately continuing to drive the primary cables. If the differential control force is reduced below the threshold, the cam and follower reengage and the bus rod connection is reinstated.

If two of the LCCAs fail, all the ailerons can still be operated by the remaining LCCA. If an LCCA control valve jams a breakout operates at 160 in lbs (18.08 Nm) allowing the other two LCCAs to continue to operate normally. If either pilot manually operates the controls whilst the autopilot is operating this will create an input disagreement and the autopilot will disengage, triggering a master warning.

The backup cables terminate at the right output quadrant. The right torque tube can be operated by an override mechanism located in the backup system, ensuring the right and left torque tubes can be operated by either the primary or backup cables. There is also a shear out allowing continued operation in the event of an override mechanism jam. If the right torque tube becomes jammed, an input from the backup cables will override it and move the output quadrant allowing the right wing cables to operate.

If either PCA loses hydraulic pressure, the remaining one will continue to operate the aileron.

#### *Water drain system*

The B767 has a canted pressure deck under the main deck floor. The deck slopes from the front and rear of the aircraft down to a lowest point above the main gear wheel wells.

There are drains on the main deck floor which divert liquid down to the canted deck where it accumulates at the lowest point. Pressure differential drains located at this point remove any liquid through the pressure deck into the wheel wells and down flexible hoses attached to the rear face of the wing spar to exit overboard via drain holes in the bottom skin of the aircraft. The primary and backup cables also route through the pressure deck at this point but do so at a level higher than the lowest point where liquid accumulates. They are also routed through sealed guide tubes.

In 1997 Boeing issued Service Letter 767-SL-27-116. This stated:

*'Icing of the lateral flight control cables in the wheel well requires three "ingredients" in order to occur – a water source in the overwing/canted pressure deck area, leak path through the canted pressure deck and freezing temperatures in the main landing gear wheel well.'*

It advised that the drains in the canted deck should be routinely cleaned and the deck itself checked for leaks. It also stated that:

*'If the canted pressure deck cannot contain standing water it will become an uncontrolled drain or leak path. As the airplane is pressurized this uncontrolled leakage can manifest itself as a pressurized spray. Effectively, it does not matter how many drains are installed in the overwing area if the canted pressure deck is allowed to leak water into the wheel well. Service experience has shown that missing fasteners, sealant, and cracks have contributed to lateral flight control icing. We recommend operators pay particular attention to the pressure web of the canted pressure deck. The pressure pans and closeout panels installed in the canted pressure deck have been known to crack and should be repaired or replaced.'*

Finally, it stated that cargo handling operations should ensure that cargo handling guidelines are followed to remove excess water or snow from cargo before it is loaded into the aircraft.

In 1998, the manufacturer issued an Alert Service Bulletin (SB) 767-51A0020, which was then revised in 2003. This introduced a modification of the canted pressure deck to avoid blockage of the drains leading to unintended fluid ingress into the main wheel well. It advised that should this occur, it could result in ice accretion on aileron control cables causing a restriction in movement. The bulletin referred to three previous events, two of which resulted in the autopilot being unable to move the ailerons, with manual operation of the controls requiring higher than normal control forces to free the cables and restore normal operation. The Federal Aviation Authority issued Airworthiness Directive (AD) 2000-22-11 in 2000 which mandated embodiment of this Service Bulletin.

A further Service Bulletin SB-767-51A0023 was issued in 2001, which introduced a repetitive inspection and unblocking as required of the drains in the canted pressure deck. The FAA issued AD 2003-19-09 in 2003 mandating the inspection requirement introduced by the Service Bulletin. G-DHLS had been manufactured with the modified drainage system and the operator stated that it had undergone all the inspections required at the time of the incident.

### *Previous events*

The manufacturer stated that from 1990, there were three events that had occurred involving reports of icing affecting aileron functionality. One of those three events involved blocked drains in areas that had improved design features incorporated in production that included the event airplane. The investigation was able to find reports from two NTSB investigations of subsequent events. One in 2000<sup>1</sup> where it was identified that SB 767-51A0020 had not been embodied, allowing blockage of the canted deck drains. A further event in 2022<sup>2</sup>, where the toilet drain mast heater circuit breakers had been left in a “tripped” off condition, thus removing power to the heater, led to ice forming on the forward drain mast. This caused water to back up the drain lines until it flooded the canted pressure deck. The operator identified a damaged seal in the canted pressure deck which had then allowed water to leak into the main landing gear wheel well. This water likely froze on one or more components of the aileron control system. In both cases the crew were able to fly the aircraft manually, releasing the control restriction through increased force on the control wheels.

The manufacturer also reported two further events in 2014 and 2020, where aileron control restriction was identified during pre-flight checks and was a result of inclement weather. In the first incident snow and ice had been blown into the wheel well before departure, in the second rainwater had leaked through loose fitting seals on the upper wing surface.

### *QRH checklist*

The B767 QRH checklist for *Jammed or Restricted Flight Controls* requires the crew to overpower the jammed or restricted control using increased force including the combined efforts of both pilots if required. The checklist suggests that if the crew believe frozen water is the cause that they should consider descending to warmer air before trying to override the jam again.

### **Flight crew response**

The co-pilot was PF when the jam became evident on disconnection of the autopilot. He reported that he felt he had a very small amount of left and right movement in the control wheel. He also said it felt like a jammed control event in the simulator which he had recently experienced. The commander took control for a short period in the descent down to FL200. He commented that he felt there was a bolt through the control wheel which was locking it in place allowing him literally no movement left or right.

When the crew identified the jam, the commander suggested that the co-pilot continue to fly the aircraft as this would allow him some time to locate the checklist, confirm its contents and check whether there was anything else in the flight deck that could be the cause. The co-pilot was able to control the aircraft in pitch and the wings remained roughly level throughout the event. Both pilots confirmed with each other what action they would take to

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### **Footnote**

- <sup>1</sup> <https://data.nts.gov/carol-main-public/basic-search> [report ref: CHI00IA152, published 06/09/2001, accessed May 2026].
- <sup>2</sup> <https://data.nts.gov/carol-main-public/basic-search> [report ref: DCA22LA179, published 20/04/2023, accessed May 2026].

level the wings should it be needed. Both pilots were aware of the more restricted operating envelope at FL350 and felt that it would be better to descend before attempting to break out the jam in case this resulted in an aircraft upset.

The flight was carrying a jumpseat passenger who was also a pilot with another operator. Although the passenger was not a B767 pilot he was familiar with the flightdeck. The commander used him to check the circuit breakers and other systems. During the descent to FL200, the commander reviewed the QRH checklist with the co-pilot so that both were clear what actions they would take. Once the aircraft was level at FL200, the commander and co-pilot both moved their control wheels to the left with significant force and full roll control was regained.

The co-pilot, after discussion with the commander, then engaged the autopilot and the flight continued normally. As a precaution against further restrictions, the crew decided to fly a longer final approach to land than normal, with an early configuration and performed in manual flight. The crew felt this would give them the earliest indication of any further control problems.

### **Aircraft examination**

Following the incident, the aircraft was extensively examined by the operator under the supervision of the AAIB. The fault codes related to the EICAS Autopilot cautions inflight were confirmed and identified as having been triggered by a discrepancy between the commanded input to the LCCA and the achieved output. This issue was present on both autopilot control channels that were selected by the crew, confirming it had been replicated on two separate LCCAs. No physical restrictions or defects within the system were found and there was no evidence that the override mechanism had been activated. Examination of the canted pressure deck lowest point under the main cargo deck floor did not reveal any accumulated water or any signs that there had been a significant amount of water present. The panels and seals visually appeared in good condition, with no evidence of any unintended leak paths into the landing gear wheel wells. All the drains were clear of debris and there was no evidence that they would not operate as expected. A test flight (without cargo) to replicate the conditions of the incident flight was performed with no adverse findings.

### **Analysis**

About 1:30 hours into the flight from Keflavik to East Midlands an Autopilot caution warning was triggered and the crew of G-DHLS found that they were unable to make aileron control inputs either manually or using the autopilot, due to what appeared to be a control jam. After descending to FL200, the crew were able to free the controls by jointly applying force in the same direction on the control wheel. The rest of the flight continued without further incident and with both manual and autopilot controls functioning normally. Post-flight checks identified no physical faults, restrictions or damage in the lateral control system. There was also no evidence that any override in the system had been activated during the flight. The investigation concluded that it was likely ice had formed somewhere on the aileron control system and this had restricted movement of the pilots' controls and notably the left aileron.

The B767 has experienced previous incidents of ice restricting movement in the lateral control system. Various actions were taken in response by the manufacturer, which were then mandated by the regulator, to address the issue. G-DHLS complied with the modifications and inspections required by these actions. The investigation considered the most likely cause of the event was the formation of ice, but by the time the aircraft landed it was not possible to locate the source of any water coming into contact with the control system nor identify specifically where on the control system the ice was likely to have formed.

The crew dealt with the incident calmly, descending first before applying force to the control wheels and releasing the jam. Previous simulator training had provided them with experience of a jammed control which proved accurate and useful. The well-known possibility of ice also meant the crew had a good plan for how to tackle the jam.

### **Conclusion**

During the flight from Iceland, it was likely that ice formed on the aileron control system, restricting movement in roll. Despite extensive inspections of the aircraft, it was not possible to identify the source of any water/fluid nor where it had formed ice to create the jam. The crew handled the emergency well with good planning, briefing and co-ordinating throughout the event. They were able to successfully release the jam using the actions in the QRH and the aircraft landed safely without further incident.

*Published: 4 June 2026.*

## Serious Incident

<b>Aircraft Type and Registration:</b>	De Havilland Aircraft of Canada Limited DHC-8, 9H-LWB	
<b>No &amp; Type of Engines:</b>	2 Pratt & Whitney Canada PW150A turboprop engines	
<b>Year of Manufacture:</b>	2010 (Serial no: 4332)	
<b>Date &amp; Time (UTC):</b>	23 April 2024 at 1740 hrs	
<b>Location:</b>	Runway 27, Guernsey Airport	
<b>Type of Flight:</b>	Commercial Air transport (Passenger)	
<b>Persons on Board:</b>	Crew - 5	Passengers - 63
<b>Injuries:</b>	Crew - None	Passengers - None
<b>Nature of Damage:</b>	None	
<b>Commander's Licence:</b>	Airline Transport Pilot's Licence	
<b>Commander's Age:</b>	56 years	
<b>Commander's Flying Experience:</b>	8,472 hours (of which 241 were on type) Last 90 days - 110 hours Last 28 days - 45 hours	
<b>Information Source:</b>	AAIB Field Investigation	

## Synopsis

On a flight returning to Guernsey from London Gatwick the Commander tried to execute a gentle touchdown, the aircraft floated and touched down about two-thirds down the runway length, it then overran the end of the runway at slow speed. There were no injuries to the passengers or crew and the aircraft was undamaged. The flight was being operated under a Wet Lease agreement and following the Serious Incident both the Lessee and the Lessor made changes to their safety management systems. Two safety actions were implemented after the event; one to enhance the Lessee's initial understanding of how flights under Wet Lease contracts were being operated, and the other was the implementation by the Channel Islands Director of Civil Aviation of an Augmented Review of Foreign Carrier Permit (FCP) Applications for Wet Lease operations in the Channel Islands. One Safety Recommendation resulted from the investigation regarding the location of emergency checklists in the DHC-8 Quick Reference Handbook.

## History of the flight

The crew reported for duty at 1050 hrs UTC at Guernsey Airport to operate four sectors. They worked for a foreign charter airline which was flying under contract to a local airline. The crew comprised a commander, who was undertaking line training of the co-pilot, a first officer who had only recently joined the company. A further first officer occupied the jump seat acting as a safety pilot. In the cabin were the cabin manager and another member

of cabin crew. A representative of the contracting operator was also onboard but was flying as a passenger, rather than as part of the crew.

The first two sectors were to East Midlands Airport and return. The co-pilot was the handling pilot on the outbound flight with the commander flying the return leg. The commander reported that this was due to the short runway at Guernsey. Both flights went without incident.

The aircraft then operated to Gatwick, with the co-pilot acting as handling pilot. After an uneventful flight, the aircraft took off for the return flight to Guernsey at 1709 hrs UTC. Again, the commander flew the return leg due, he stated, to the short runway at Guernsey. After a short cruise at FL180 the aircraft commenced a descent for an approach to Runway 27 at Guernsey. After handover to Guernsey Approach ATC, the crew requested an extended route in order to lose sufficient height for the approach. In response, ATC gave the crew extended radar vectors before then clearing them for an ILS approach to Runway 27.

The crew configured the aircraft for landing with Flaps 35 and a VREF of 118 kt. The commander reported he flew the approach at about 124 kt to take account of the small headwind and any inaccuracies in manually setting the power. He stated the aircraft was stable when it descended through 1,000 ft AAL, in accordance with the operator's standard operating procedures. At about 250 ft radio altitude, with the runway clearly in sight, the commander disconnected the autopilot to manually fly the rest of the approach and landing.

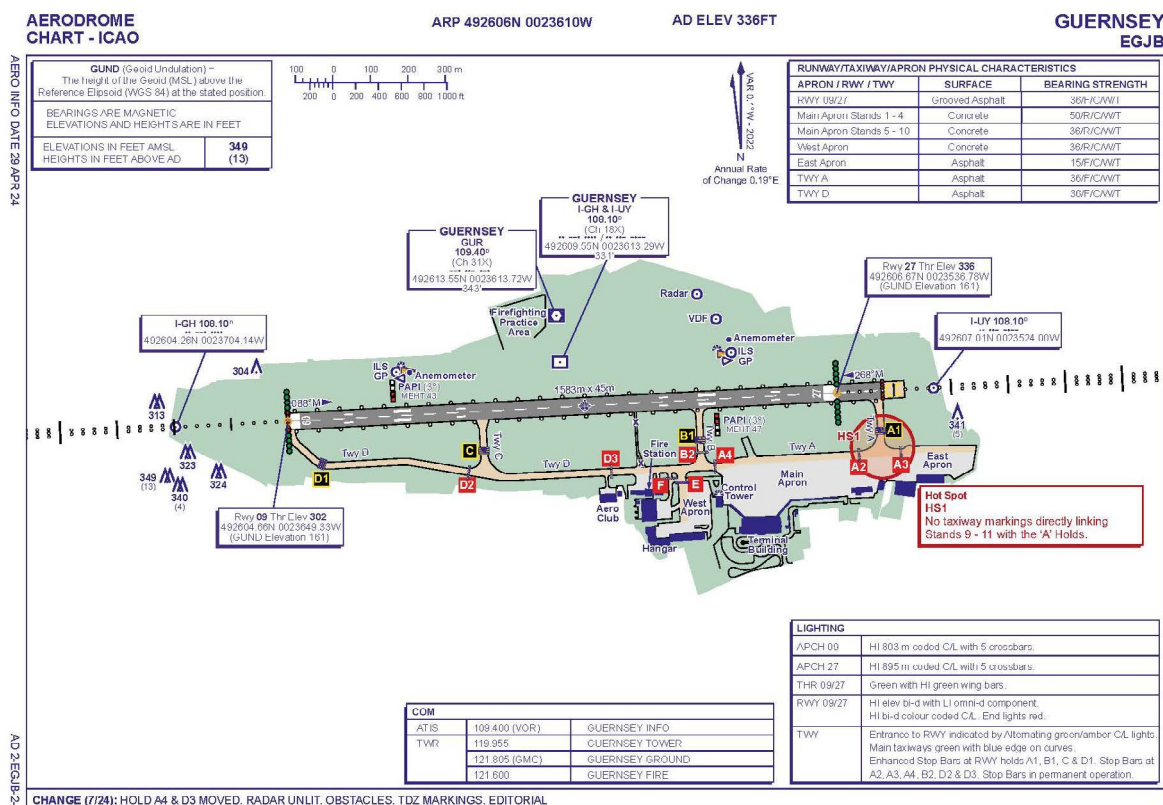
The commander stated he would normally aim to touchdown on Runway 27 at the touchdown markers abeam Taxiway B (Figure 1). He stated that on this occasion he flew across the runway threshold at about 50 ft, as intended, and then flared the aircraft to try and achieve gentle touchdown. This resulted in the aircraft floating down the runway for an extended period, compounded by the runway gently sloping away from the aircraft. The commander stated that a combination of the aircraft pitch and runway slope meant he was unaware of how far down the runway the aircraft had travelled. Both the co-pilot and safety pilot reported they had also not realised how far the aircraft had travelled and did not consider they needed to warn the commander or call for a go-around. When the aircraft did finally touch down, it was about two-thirds of the way down the runway.

On touchdown the commander stated he applied 'normal' braking, being confident this would be sufficient. He did not routinely use reverse pitch unless he thought it necessary and did not do so for this landing. On passing the turnoff for Taxiway C, however, he realised the end of the runway was fast approaching and, although the aircraft was slowing, he judged it would not stop before the runway end. The commander stated he therefore applied 'full' brakes, but still without applying reverse pitch on the propellers as he still thought this unnecessary to stop the aircraft in time. He could hear the anti-skid working and the aircraft started to deviate to the right. He reported he used the steering tiller to steer the aircraft back towards the centreline and the aircraft then departed the end of the runway at low speed. The aircraft continued to the left and came to a halt about 30 m beyond the end of the runway.

The commander kept the engines running and about 10 seconds later applied some power to attempt to taxi back to the runway. The aircraft however did not move, and ATC instructed the crew to remain in position. The airport fire services then arrived and contacted the crew using a discrete frequency. The commander was advised there were no signs of fire and was asked if he was able to taxi back to the runway. Despite the previous unsuccessful attempt to taxi off the grass, the commander asked ATC whether he would be able to move and was told to wait while enquiries were made. ATC then came back instructing the commander he should shut down the engines. In response, the commander shutdown the engines by selecting the propeller condition levers to the fuel shutoff position, but without further reference to either the normal or emergency shutdown checklists. The aircraft had by then been off the runway for just over six minutes.

As the aircraft's APU was unserviceable the aircraft was left on battery power only. A bus was then arranged to collect the passengers, but the only airport bus was unserviceable and a replacement had to be found in the local town. This arrived about 45 minutes later to transport the passengers back to the terminal. The aircraft was then towed to the apron.

There were no injuries among either the passengers or crew.



**Figure 1**  
 Guernsey Airport AIP Aerodrome Chart

## Accident site

The aircraft stopped approximately 30 m from the end of the runway in the grassed area (Figure 2), the main landing gear (MLG) had ploughed a deep furrow in the grass, and the nose gear right wheel had accumulated a thick layer of soil. There were tyre markings on the runway showing the aircraft veering to the right towards the end of the runway. The tyre markings had the characteristic intermittent skid pattern showing where the Anti-Skid system was functioning. Other than disruption of the grassed area there was no other damage to the airfield surfaces or equipment.



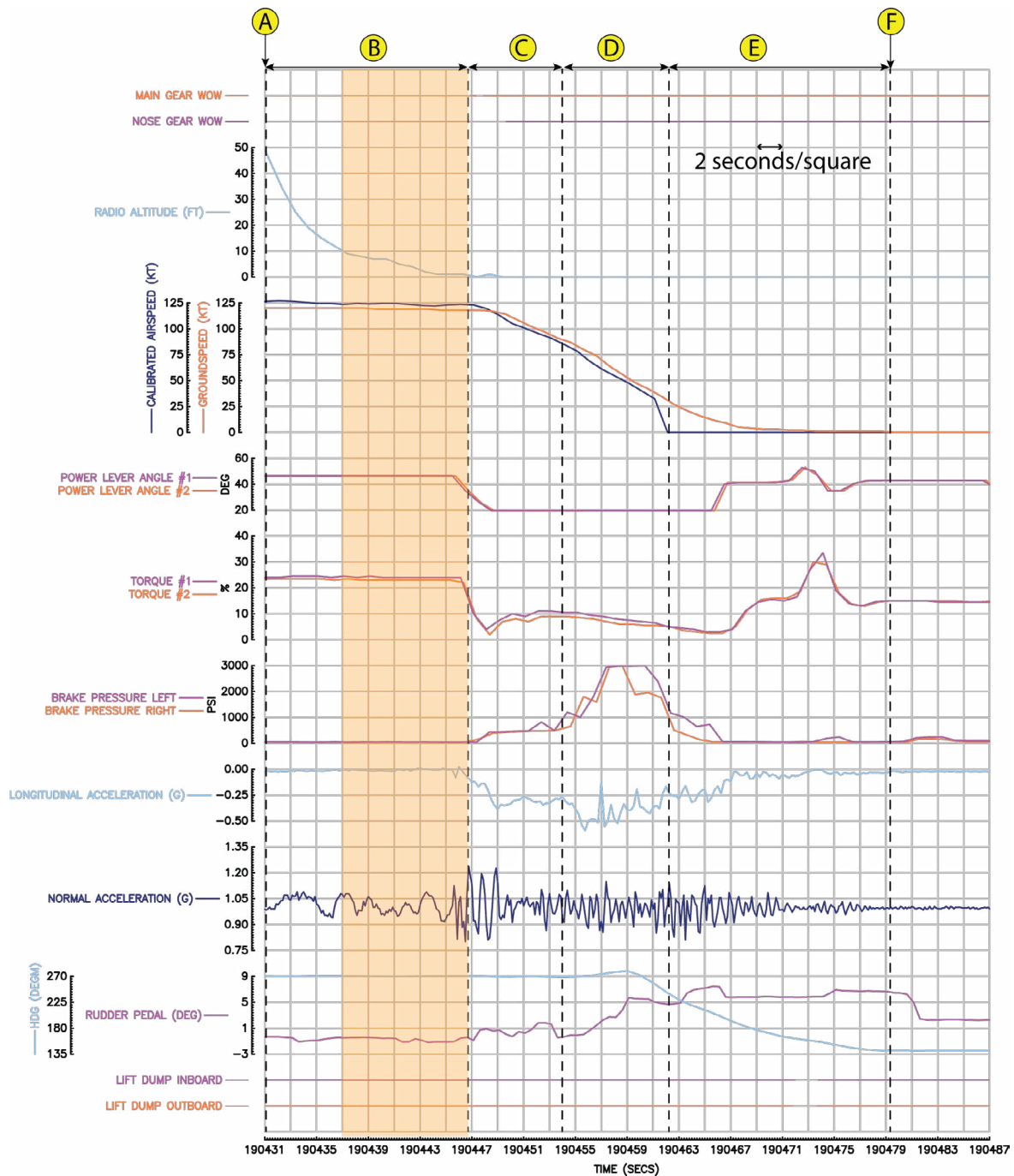
**Figure 2**

Location of aircraft (image used with permission)

## Recorded information

### *Flight recorders*

9H-LWB was fitted with a solid-state CVR of 2 hours duration and a solid-state FDR of 25 hours duration. Salient FDR data for the incident landing is plotted below in Figure 3.



**Figure 3**  
FDR data of the landing

This shows that 9H-LWB passed over the runway threshold at a height of 50 ft and with an airspeed of 124 kt, point A on Figure 3. Region B on Figure 3 shows 9H-LWB’s descent from 50 ft to main landing gear touchdown and, the shaded region, represents the time that 9H-LWB was below 10 ft but hadn’t yet touched down. During this 10 second period, with a ground speed of 120 kt, equivalent to 62 m/s, 9H-LWB would have consumed 620 m of the available landing distance (1,463 m). Region C shows that after a small bounce on the main landing gear manual braking was applied, using 500 psi out of 3,000 psi that was

available, the power levers were reduced to the DISC position<sup>1</sup> and the nose gear touched down. The recorded latitude and longitude at the point when the nose gear touched down placed 9H-LWB just after Taxiway C, approximately 520 m from the end of the runway. Region D shows initially symmetric braking, followed by an increased application of left rudder and then asymmetric braking to counter the deviation to the right, that is seen in the heading and, finally the application of maximum braking pressure of 3,000 psi, which was maintained for 3 seconds. Region E covers the period where 9H-LWB left the paved runway, at approximately 25 kt ground speed, until it came to a stop, at point F. During this period, an attempt was made to taxi the aircraft back onto a paved surface, which is seen in the data by use of increased levels of engine power.

#### *Closed-circuit television (CCTV) recordings*

Several CCTV recordings were reviewed from Guernsey Airport that showed 9H-LWB's approach and landing. These show 9H-LWB crossing the threshold for Runway 27 at what appeared a normal height, then flying level along the runway for about 10 seconds, prior to touching down in the vicinity of Taxiway C. A review of the CCTV for other landings made by 9H-LWB in the preceding weeks, identified other instances, where the aircraft had touched down beyond the touchdown zone.

#### *Operator's Flight Data Monitoring (FDM) events*

At the time of this Serious Incident, the operator had an FDM system in place. The operator supplied a spreadsheet, covering April 2024, that contained several alerts for 9H-LWB's operation into Guernsey. Eight of these alerts related to the use of minimal braking at touchdown, triggered from the recorded longitudinal 'g' parameter, representing deceleration, being low, and seven alerts were for excessive speed at touchdown, triggered from the aircraft's airspeed. One of the alerts for minimal braking at touchdown related to this Serious Incident and, the FDM system categorised this event of medium severity, whereas all the other minimal braking at touchdown events were of low severity. As the excessive speed at touchdown alert was triggered from airspeed and, not groundspeed, a few of these were likely spurious due to gusty wind conditions, three of the alerts occurred in benign conditions with airspeeds at touchdown of 140 kt being recorded.

### **Aircraft information**

The DHC-8-402 is a turboprop powered regional airliner. The series 400 is capable of carrying up to 78 passengers. The aircraft is powered by two Pratt and Whitney Canada PW150 engines. The DHC-8 series aircraft were developed from the DHC-7 which was an aircraft designed and used for short field operations. The DHC-8 was optimised for improved cruise performance and lower operating costs. While suitable for operating from regional scale infrastructure it does not have the same short take-off and landing (STOL) performance as its predecessor.

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#### **Footnote**

<sup>1</sup> Setting the propellers to DISC moves the propeller blades to a very fine pitch which causes a negative angle of attack and results in an aerodynamic braking force.

## Aircraft examination

A visual inspection of the aircraft was conducted. There was no damage to the aircraft structure or engines. All the tyres had accumulated soil from the excursion through the grass. The right MLG inner tyre had patches where the canvas plies were visible and the outboard tyre had sustained a cut to the tread. The left MLG outboard tyre had sustained cuts into the tread. There was a differential in wear between the left and right MLG tyres although the aircraft manufacturer advised that the anti-skid braking system unit would be capable of managing the differential of wear observed. A photo taken of the right MLG tyres a couple of flights before the flight on which the Serious Incident occurred showed the reinforcing plies starting to be visible in the tread area. The aircraft Aircraft Maintenance Manual (AMM)<sup>2</sup> allows up to eight landings after the reinforcing plies become visible in the tread area.

Inspection of the brake units found movement on one of the stators on the right MLG outboard brake unit. The aircraft batteries had run out of charge and once power was eventually restored to the aircraft, interrogation of the aircraft flight system indicated one past system fault with the Anti-Skid Control Unit (ASCU). Although the crew was not aware of any annunciation or alerts associated with this system during the flight on which the Serious Incident occurred.

## Aircraft Quick Reference Handbook (QRH)

The aircraft carried a copy of the manufacturer's QRH. This included checklists entitled '*on ground non-normal*' and '*evacuation*' (Figure 4). It was noted during the investigation that these checklists were not signposted in the QRH index but were included under Section 5, marked in the index as '*Engines, APU, Propellers*' (Figure 5). Without specific knowledge of where the emergency shutdown and evacuation checks appeared, there was nothing to assist locating them.

The AAIB raised this with the manufacturer, but they did not consider it an issue. They stated that the QRH was not a certified document and operators were free to document normal, abnormal and emergency procedures as they chose. They also stated that the use of the document relied on training to be able to locate checklists. They believed that the layout and location of checklists was sufficient, having been reviewed on multiple occasions with flight crews over the last 24 years through their Flight Operations Steering Committee meetings. They considered that if operators believed this was a problem, it would have been addressed already.

A major operator of the DHC-8 subsequently contacted by the AAIB had adapted the manufacturer's QRH, including the incorporation of a separate section which appeared at the top of the index, entitled '*Immediate Actions*'. The '*on ground non-normal*' and '*evacuation*' appeared in this section.

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### Footnote

<sup>2</sup> Q400 AMM 76, TASK 32-41-00-210-801 Visual Inspection of the Main and Nose Tires.

<b>ON GROUND NON-NORMAL</b>	
When airplane comes to a stop:	
• Emerg Brake .....	set
<b>Engine fire:</b>	
• ENGINE FIRE (On Ground) (Page 5.3) .....	accomplish
<b>Engine failure:</b>	
• Power levers .....	Disc
• Condition lever (affected) .....	Fuel Off
• Pull Fuel/Hyd Off handle (affected) .....	pull
• Tank Aux Pump (affected) .....	off
<b>Other failure:</b>	
• Appropriate Abnormal / Emergency procedure(s) .....	accomplish
<b>ENGINE FIRE (On Ground)</b>	
• Emerg Brake .....	set
• Power levers .....	Disc
• Condition levers .....	Fuel Off
• Pull Fuel/Hyd Off handle (affected) .....	pull
• Tank Aux Pumps (1 and 2) .....	off
• Extg switch .....	Fwd Btl
Wait up to 30 secs. If fire persists:	
• Extg switch .....	Aft Btl
• EVACUATION (Page 5.3) .....	accomplish
<b>EVACUATION</b>	
• Emerg Brake .....	set
• Power levers .....	Disc
• Condition levers .....	Fuel Off
• Pull Fuel/Hyd Off handles .....	pull
• Emergency Lights .....	On
• Fasten Seat Belts .....	Off
• Evacuation .....	initiate
• AC/DC Ext Pwr and APU .....	Off
• Battery Master .....	Off

**Figure 4**

On Ground Non-Normal and Evacuation QRH Checklists

AIR CONDITIONING PRESSURIZATION PNEUMATICS	▶ 4	4
APU ENGINES PROPELLERS	▶ 5	5
AUTO FLIGHT FLIGHT INSTRUMENTS NAVIGATION	▶ 6	6
FUSELAGE FIRE or SMOKE	▶ 7	7
EMERGENCY LANDING FORCED LANDING	▶ 8	8
ELECTRICAL	▶ 9	9
FLIGHT CONTROLS	▶ 10	0
FUEL	▶ 11	1
HYDRAULIC POWER	▶ 12	
ICE AND RAIN PROTECTION STALL PROTECTION	▶ 13	
LANDING GEAR	▶ 14	

**Figure 5**  
QRH Index

### Aircraft performance

The unfactored landing distance required was calculated using the DHC-8-400 QRH onboard the aircraft at the time of this incident. Using the calculated landing weight of approximately 27 tonnes, and considering the 5 kt headwind and 1% downslope of the runway, the distance required was approximately 750 m. This figure was based on a VREF speed of 118 kt and does not take into account the additional increment of 6 kt used by the crew, which would have increased the distance required.

### Meteorology

The ATIS at 1720 hrs reported a westerly wind of 6 kt, visibility of 10 km with 1/8-2/8 cloud at 1,300 ft and scattered cloud at 1,600 ft.

### Airfield information

Guernsey Airport has a single asphalt runway orientated 09/27 which is 1,583 m long and 45 m wide. The runway slopes down 1% from the Runway 27 threshold. The threshold to

Runway 27 is displaced by 120 m, with a landing distance available of 1,463 m. There was a 150 m wide grass clearway extending 216 m beyond the end of Runway 27.

There were three sets of runway touchdown markings for both runways. For Runway 27, the first set of marks started 140 m from the threshold, the second (and main markings) started 300 m and the third set of markings started 420 m from the threshold.

## **Personnel**

### *Commander*

The commander had commenced his flying career in the military in 1987, before gaining a CPL in 1993 and an ATPL in 2001. He had flown for several companies on a variety of types, including about 2,100 hours as both a commander and co-pilot on the ATR 42 and ATR 72. He joined the operator of 9H-LWB in 2012 and was one of the senior managers within the company.

The commander commenced training on the DHC-8 in May 2023, completing his type rating in June 2023. He operated on charter flights in Italy and, after gaining 100 hours on type, became a line training instructor. The commander had been based in Guernsey since the start of the charter contract there on 2 April 2024.

The commander stated that he chose to always land the aircraft himself at Guernsey, due to the short length of the runway. He estimated he had flown 23 landings at Guernsey since his arrival on the island at the start of April.

### *Co-pilot*

The co-pilot had joined the operator in November 2023 as a First Officer straight after having gained his CPL. He had about 290 total flying hours and had started line training in March since when he had accumulated 38 hours on type.

### *Safety pilot*

The safety pilot was a First Officer who had joined the operator in September 2023, straight from gaining his CPL. He had completed his line training with the operator in February 2024 and had a total of about 415 flying hours, of which about 180 hours were on the DHC-8.

## **Organisational information**

### *The operator*

At the time of the serious incident, the operator operated two DHC-8 aircraft using five crews with one co-pilot additionally in training. It sub-contracted type rating training on the DHC-8 to another operator, which in turn used sub-contracted instructors to conduct the training. Line training was conducted in-house by the operator's own line training pilots. Co-pilots required a minimum of 40 sectors of line training. A safety pilot occupied the jump seat on all line training flights. This allowed them to swap with the pilot being trained should the need arise and provided an additional level of oversight of the flight deck operation.

The operator had three crews in Guernsey as part of the contract, with the First Officer under-going line training in addition.

### Tests and research

#### *Anti Skid Control Unit (ASCU)*

The ASCU was removed from the aircraft and sent to the manufacturer for further testing. The results of this testing showed that the NVM data indicated there were no faults present in the last 15 flight cycles, including the overrun event. Because there was no anti-skid fail discrete or annunciation of a Crew Alerting System message to the crew, a plausible cause for the ASCU error message displayed on the aircraft interface may have been a power interruption. While there were no power issues during the flight or landing, this may also correlate with problems applying power to the aircraft after the event because the batteries were flat.

#### *Brake unit*

The brake unit with the broken stator was taken to the manufacturer for further examination. When disassembled it was found that stator No S1 had lost all its locating lugs (Figure 6) and was free to rotate around the brake torque tube.



**Figure 6**

Comparison of stators S2 and S1 showing lug wear on S1

The locating lugs which are made of carbon had been filed away by the splines on the torque tube. This occurred because the torque tube had suffered severe corrosion causing the surface to be rough, effectively acting as a file on the carbon locating lugs. The torque tube was sent for a metallurgical examination to understand what had caused the corrosion. The examination confirmed that at some point in its overhaul history the torque tube nickel

alloy surface had been incorrectly treated with a high temperature resistant coating such as paint. This was evidenced by the presence of aluminium on the surface of the torque tube and in the corrosion pits. The manufacturer concluded that this would have an approximate 25% reduction in braking performance on this individual brake unit, but that this effect would be compensated for by the Anti-Skid system. Analysis of braking distance performance showed that the increase in braking distance between the fully working brake system and the worst case of a seized brake calliper for a wet runway is an additional 13 metres of braking distance. The AMM<sup>3</sup> for the aircraft calls for a visual inspection of the brake unit for signs of wear, damage and cleanliness, but does not require a physical check for stator movement of brake units during tyre/wheel changes. The thickness of brakes is monitored during operation and these will be removed for repair and overhaul as required and also checked as part of the aircraft base maintenance cycle. It was not possible to determine if the stator had become completely detached prior to the flight on which the serious incident occurred.

## Other information

### *Regulatory framework*

#### *UK CAA Wet lease regulations and guidance*

*'A 'wet lease agreement' is where an air carrier (the Lessor) provides an aircraft, complete with crew, maintenance and insurance (ACMI) to another airline (the Lessee). The aircraft is operated under the AOC of the Lessor (the party from which the aircraft is leased)'<sup>4</sup>. The Lessor manages the risks associated with the flight, but the contracting operator (the Lessee) must have the wet lease agreement approved by the CAA. To obtain approval, the Lessee must demonstrate to the CAA that:*

- The Lessor has a valid AOC.
- The aircraft has a standard Certificate of Airworthiness.
- The safety standards of the Lessor with regards to continuing airworthiness and air operations are equivalent to the applicable regulatory requirements.<sup>5</sup>

The regulations for contracted activities in general (UK Reg (EU) 965/2012 (Air Operations) and ORO.GEN.205 Contracted activities) require that aviation safety hazards associated with the contracted services are considered by the contracting operator's management system. Safety related activities should be included in the contractor operator's safety management system and compliance monitoring programme and the contracting operator should ensure that the contracted operator *'commands the resources and competence to undertake the task.'*

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### Footnote

<sup>3</sup> 400 AMM[76]. TR32-621, TASK 32-41-01-400-801 Installation of the Main Wheel and Tire Assembly

<sup>4</sup> Civil Aviation Authority (2015), Aircraft leasing – New UK policy and process for wet leasing-in from a community operator. <https://www.caa.co.uk/media/ppwjj0ig/advance-information-notice-wet-leasing-in-policy-and-process-when-using-community-operators-from-1-april-2015.pdf> [accessed 7 March 2025]

<sup>5</sup> UK Reg (EU) No 1321/2014 [Continuing Airworthiness](#) and UK Reg (EU) 965/2012 [Air Operations](#) [accessed 9 January 2026].

### *Guernsey Air Navigation Regulations*

In addition any aircraft not registered in the United Kingdom and its territories and dependencies is required<sup>6</sup> under Guernsey Air Navigation Regulations to apply for a Foreign Carrier Permit (FCP) to enable it to arrive and depart from Channel Islands Airports.

### *Oversight and Assurance*

There are a number of different organisations who have a role in undertaking oversight and assurance of the airlines involved in this serious incident. These are primarily the respective regulators for the operators (UK CAA, Maltese NAA and EASA) and the Channel Islands, Director of Civil Aviation (CIDCA). Additionally, the safety departments of the operators conduct their own assurance checks. The investigation examined relevant aspects of this oversight and assurance chain, by conducting interviews and reviewing documentation and observed the following:

#### *The contracting operator (The Lessee)*

The requirement to contract the ACMI was driven by operational challenges primarily due to delays in aircraft deliveries and unforeseen maintenance issues as the operator transitioned from a mixed fleet of aircraft to an ATR fleet. Limited fleet availability meant there was a time imperative to provide capacity. This particular ACMI was required after the proposed provider of an alternative longer-term ACMI withdrew at short notice.

This was not the first occasion on which the operator had been required to undertake a wet lease contract, although historically this was undertaken on an infrequent basis.

The operator's activities were compliant with regulation, and they undertook the required due diligence activities to fulfil their responsibilities to assure the safety of the ACMI operation. This included visits to the Lessor and examination of findings from previous audits and safety reports. There was a change of the Lessee's Safety Manager during the period in which the ACMI contract was being let.

As part of the ACMI, FDM-generated safety information was agreed to be exchanged, but the Lessee received no FDM-generated safety information from the Lessor that indicated long landings at Guernsey Airport prior to the serious incident.

### **Safety Action**

Whilst not a regulatory requirement, post the Serious Incident the Lessee introduced the following safety action to enhance their assurance of ACMI operations:

On commencement of any new wet lease operation, it is required that a flight deck observation of the ACMI crew will be undertaken by one of the Lessee's Training Captains.

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#### **Footnote**

<sup>6</sup> Section 1(1) of The Air Navigation (Bailiwick of Guernsey) (Foreign Aircraft Operations) Regulations, 2019.

From the evidence observed, the contracting operator had a safety conscious and 'safe to challenge' culture. All levels of the organisation up to the Accountable Manager had good knowledge of the various operational options to maintain operational continuity and there was no evidence of any doubts about the safety of the ACMI operation.

#### *The contracted operator (The Lessor)*

The Lessor had 25 years of experience providing ACMI operations and had been operating the DHC-8 since 2021.

The Lessor assessed that the management of change process they undertook was compliant and sufficient but that it was time pressured. They considered that the collaboration with the Lessee was positive but that in hindsight there could have been more operational collaboration. Once the ACMI was in place the Lessor felt the relationship was positive but reactive in nature, ie discussions took place in response to occurrences rather than pre-planned, but they also acknowledged that in their experience this was not necessarily unusual.

Post the serious incident an error was identified in the Lessor's FDM data after a change of FDM provider detected a latitude/longitude position error. The Lessee stated it was difficult to view corrected FDM data to establish if this would have revealed the presence of any previous long landings at Guernsey Airport.

The Lessor stated that they have now started to increase liaison between their flight operations and training departments. For example, looking at the specific area of operation for the ACMI with the operators who are already working there.

The Lessor's internal investigation determined that "human factors and human error" contributed to the runway excursion. They assessed that the serious incident was caused by the commander trying to make a gentle landing and misreading the perspective of the runway due to the runway slope and not realising that the aircraft was going so long. Due to the lack of experience of the other pilots on board (trainee and safety pilot), they did not inform the commander of the need to go around. Following this event the Lessee advised that they no longer allow training on ACMI flights.

#### *UK CAA and CIDCA*

As an operator based in the Channel Islands but listed on the UK G-Register the Lessee is regulated by the UK CAA. Whilst the Channel Islands Director of Civil Aviation (CIDCA) has limited regulatory powers over this or any other G-Registered operator, the CIDCA does have the power to conduct sample checks of aircraft being operated under Foreign Carrier Permits (eg the ACMI aircraft). Whilst conducting such sample checks would have been unlikely to prevent this serious incident, since this event the CIDCA has introduced additional procedures to allow enhanced audits of aircraft being used by a Foreign Operator flying into the Channel Islands.

## Safety Action

The Channel Islands Director of Civil Aviation took the following safety action:

The CIDCA procedure OCDA 801 for the issue of Foreign Carrier Permits has been amended to introduce an Augmented Review of FCP Applications for ACMI operations in the Channel Islands being operated at higher frequency or for an extended duration.

Currently the CAA and CIDCA will share important safety information as required regarding Civil Air Operations in the Channel Islands. Measures are being undertaken to expand this sharing of safety information through the establishment of a memorandum of understanding between the CAA and CIDCA.

## Analysis

### *Operations*

Both the available flight data and CCTV demonstrated the aircraft 'floating' down the runway for an extended period of time before touching down. The aircraft was flown below 10 feet above the runway surface for some 10 seconds without reducing below VAPP, during which time it consumed nearly half of the landing distance available. The reason given for this was the commander, as handling pilot, wanting a gentle touchdown.

All three pilots occupying the flightdeck stated that the runway slope had contributed to a lack of visual perspective, meaning that none of them was aware how far down the runway the aircraft had travelled by the time it did finally touchdown. They would, however, have been aware of the prolonged period of time the aircraft had been over the runway, in excess of what should have been considered normal. Equally, all three would have known the relatively short landing distance available, not least because this was the reason given for the commander choosing to be the handling pilot. Under the circumstances, having overshot the touchdown zone on a relatively short runway a go-around would have been expected.

The lack of experience of both the co-pilot and safety pilot, and the seniority gradient existing between them and one of the company's senior managers, would have made their ability to both identify and communicate any concerns to the commander challenging.

Having touched down, the runway remaining was considerably shorter than planned but, judging he had sufficient runway ahead, the commander delayed applying full braking and did not make use of reverse propeller pitch to slow the aircraft. This proved inadequate to stop the aircraft in the remaining distance, although the aircraft left the runway at relatively low speed. There was still, however, the potential for damage to have been caused, without the crew's knowledge. This, and the potential to cause damage in trying to taxi back to the runway, should have resulted in a quick decision to shut the aircraft down whilst awaiting assistance. Instead, it was some six minutes before the engines were shut down, and then only after two attempts to taxi the aircraft back onto the runway. Despite an apparent lack of urgency to shut the engines down, when this was done it was without adherence to any normal or emergency checklist, leaving potential for items to be missed.

The investigation highlighted the difficulty of finding the appropriate emergency shutdown checklist in the manufacturer's QRH. It is accepted that the crew did not attempt to find the checklist and so, in this instance, it is unlikely that this contributed to their failure to use them. It is, however, considered that in other circumstances the difficulty in identifying the emergency shutdown and evacuation checklist may have a significant outcome. The manufacturer is of the view that there is not an issue based on many years of operation and that it is for operators to develop and train on the use of the normal and abnormal emergency procedures. The operators will base their QRH on that provided by the manufacturer and are unlikely to deviate. However, at least one major operator has taken it upon themselves to make the checklist more easily identifiable and accessible.

As a result, the following safety recommendation is made:

**Safety Recommendation 2026-006**

It is recommended that De Havilland Aircraft of Canada Limited reviews the location and indexing of the 'on ground non-normal' and 'evacuation' checklists in the DHC-8 Quick Reference Handbook and makes appropriate changes to improve their ease of access during an emergency.

*Organisational factors*

An imperative to generate capacity through ACMI contracts was due to a lack of aircraft availability primarily caused by unforeseen problems in the transition from a mixed aircraft fleet to a predominately ATR fleet. This particular ACMI contract was required at short notice after a long-planned alternative fell through unexpectedly.

The short notice nature of the ACMI meant that the change management process for both the Lessee and Lessor, whilst compliant, was time pressured. But there was no evidence that required safety activities or due diligence were compromised prior to the letting of the contract.

Once the contract was established the relationship between the parties appears to have been positive although reactive in nature. For example, agreements on the provision of FDM data were in place but no information containing any safety triggers had been provided to the Lessee by the Lessor prior to the serious incident.

Whilst the Lessor identified problems after the event with the FDM data, analysis of the data provided to the investigation showed there were some triggers for minimal braking and excessive speed at touchdown indicated in the data available to the Lessor prior to the incident flight. The braking triggers were of low severity and some of the airspeed triggers may have been spurious due to wind conditions. However, the investigation considered that a more proactive approach to exploiting the FDM data available may have provided indications to the Lessee and Lessor of how the ACMI flights were being flown in the early stages of the contract. Particularly as CCTV footage identified instances prior to the runway excursion where the aircraft had landed beyond the touchdown zone.

Post the serious incident both the Lessee and the Lessor identified and made changes to their safety management systems. These were primarily aimed at improving operational collaboration in ACMI scenarios, eg observational flight check rides and improved liaison between the operational training and flight crews of the contracting parties.

### *Engineering*

No technical reason could be established to explain why the aircraft veered to the right under braking. The differential in tyre wear between the left and right MLG was assessed by the aircraft design authority as being within the capabilities of the Anti-skid system to manage and performance modelling showed that the single broken stator in one brake unit would have a minimal effect on braking performance.

### *Regulatory*

The ACMI activity was conducted in accordance with regulation and this was not considered a factor in this serious incident. However, during the investigation it was agreed by the UK CAA and CIDCA that enhancements to the current sharing of safety information should be expedited and this resulted in an agreement to generate a formal MoU on safety information exchange between the respective regulators.

### **Conclusion**

The runway excursion occurred because the Commander, while trying to perform a gentle landing, touched down a considerable distance beyond the landing zone with insufficient runway left to arrest the aircraft using normal braking. The application of full braking force was too late to prevent a low-speed departure from the runway. More proactive exploitation of FDM data may have detected how the flights were being conducted in the early stages of the contract as there was evidence available of previous landings beyond the touchdown zone. In response to the serious incident both the Lessee and the Lessor identified and made changes to their safety management systems.

### **Safety Recommendations**

#### **Safety Recommendation 2026-006**

It is recommended that De Havilland Aircraft of Canada Limited reviews the location and indexing of the 'on ground non-normal' and 'evacuation' checklists in the DHC-8 Quick Reference Handbook and makes appropriate changes to improve their ease of access during an emergency.

### **Safety Actions**

#### *Channel Islands Director of Civil Aviation*

The CIDCA procedure OCDA 801 for the issue of Foreign Carrier Permits has been amended to introduce an Augmented Review of FCP Applications for ACMI operations in the Channel Islands being operated at higher frequency or for an extended duration.

**Lessee**

On commencement of any new wet lease operation, it is required that a flight deck observation of the ACMI crew will be undertaken by one of the Lessee's Training Captains.

*Published: 2 July 2026.*

## Accident

<b>Aircraft Type and Registration:</b>	Dyn Aero MCR-01, G-TOMX	
<b>No &amp; Type of Engines:</b>	1 Rotax 912ULS piston engine	
<b>Year of Manufacture:</b>	2009 (Serial no: PFA 301-14624)	
<b>Date &amp; Time (UTC):</b>	4 May 2025 at 1558 hrs	
<b>Location:</b>	Shenstone Hall Airfield, Staffordshire	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - None
<b>Injuries:</b>	Crew - 1 (Fatal)	Passengers - N/A
<b>Nature of Damage:</b>	Destroyed	
<b>Commander's Age:</b>	60 years	
<b>Commander's Flying Experience:</b>	1,368 hours (of which 890 were on type) Last 90 days - 1 hour Last 28 days - 0 hour	
<b>Information Source:</b>	AAIB Field Investigation	

## Synopsis

Shortly after takeoff the aircraft is likely to have lost power. It appears that the pilot attempted to return to the departure airfield but lost control of the aircraft whilst doing so. The aircraft struck the ground in a cultivated field close to the grass airstrip, resulting in a post-accident fire which destroyed the aircraft. The pilot was fatally injured.

In the event of a power loss shortly after takeoff pilots must make quick and difficult decisions whether to attempt a forced landing. The performance of the aircraft meant a turnback to the airfield runway was not possible. The CAA guidance is not to attempt a turnback manoeuvre and to aim for a point in front in the event of power loss shortly after takeoff. This accident serves to remind pilots that pre-briefing actions in an emergency, especially when close to the ground, taking into account the prevailing weather conditions and aircraft performance, may aid them in making quick and decisive decisions if faced with such an emergency.

The pilot had recently performed several maintenance activities on the engine and fuel system but had not had the work assessed by a Light Aircraft Association (LAA) inspector. Although the cause of the power loss could not be determined it is possible that it was associated with work carried out on the aircraft prior to the flight.

This accident also highlights the importance of following the guidance provided by the relevant regulatory bodies or sporting associations to ensure that all maintenance completed, other than that described as 'pilot maintenance', is inspected and signed off by a suitable inspector.

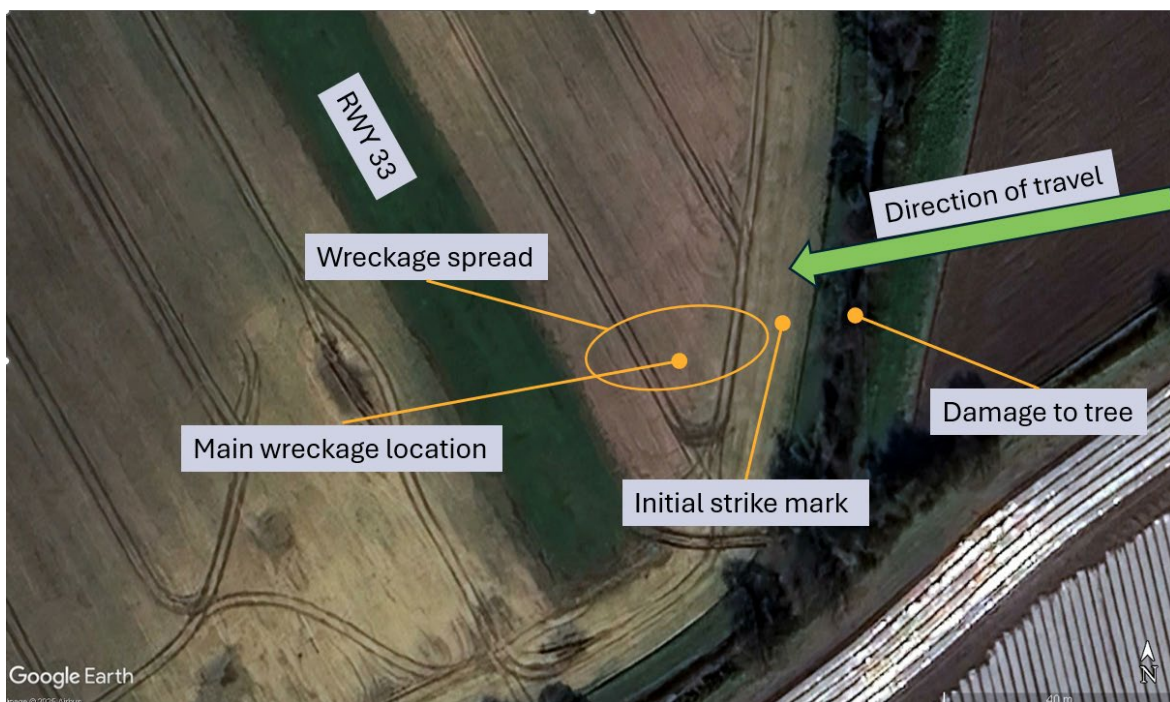
## History of the flight

On the day of the accident, the pilot was seen removing the aircraft from its hangar at the private airstrip where it was based, by other pilots at the strip. The other pilots had left the strip before the aircraft departed and there was no witness to the aircraft's departure. CCTV captured the aircraft back tracking and subsequently departing from Runway 33 at approximately 1558 hrs. The pilot was the sole occupant onboard. CCTV further captured the aircraft downwind and then turning back towards the strip, approaching the runway at right angles. The aircraft was captured on CCTV striking the ground and bursting into flames, in a field close to the airstrip.

The wreckage of the aircraft was discovered the following morning by the landowner whilst walking his dog.

## Accident site

The aircraft had come to rest in cultivated farmland to the east of the grass strip of Shenstone Hall Airfield (Figure 1).



**Figure 1**

G-TOMX accident site location

Small fragments of tree debris were found to the west of the airfield's easterly boundary, suggesting the aircraft struck the treetops before ground contact. An initial ground scar was located 15 m from the tree line, with the main impact point being 5 m beyond that. The main wreckage was 32 m from the tree line.

The aircraft came to rest inverted with its nose pointing in the direction it had come from. The seat pan was found 10 m beyond the main wreckage. A significant fire had consumed most of the composite aircraft, with only the engine block remaining intact.

One of the three ground adjustable propeller blades remained attached to the hub. The two other blades were found in the wreckage trail. All the blades were intact with no leading-edge damage, suggesting that the propeller was not rotating, or rotating slowly at the time the aircraft struck the ground.

The ground scars suggest that the right wing contacted the ground first, before the aircraft cartwheeled and came to rest. Scorching of the ground between the main impact location and where the wreckage came to rest suggested that the composite fuel tank had ruptured when the aircraft initially struck the ground causing the fuel within it to immediately ignite.

The damage sustained by the aircraft in the subsequent fire was such that it was not possible to confirm the continuity of any of the primary flying controls to their respective control surfaces.

The forces involved in the accident sequence suggest that the accident was not survivable.

### Recorded information

Two CCTV cameras, one positioned at a gateway opposite the entrance to the farm strip with a view down the runway and the other on a farm building approximately 200 m further away from the strip captured most of the accident flight (Figure 2).



**Figure 2**

Shenstone Hall Airfield and location of CCTV cameras

The camera positioned at the gate captured video of the aircraft taxiing from the hangar area before it backtracked the grass strip. The aircraft then turned and took off. The climb appeared to be normal. The aircraft then initiated a right turn before going outside of the camera's field of view.

Footage from the second camera showed the aircraft continue the right turn onto what was possibly a crosswind leg. The aircraft was then seen to turn right again and maintain heading before going out of view.

The gateway camera then captured footage of the aircraft as it completed its right turn and proceed away from the camera. The aircraft was then seen to turn right again and start to descend rapidly with a high angle of bank to the right before striking the ground. The subsequent fire and smoke indicated that the wind at the time of the accident was across the runway. There was no evidence to suggest that there was an in-flight fire.

The length of the flight was approximately 55 seconds.

### **Aircraft information**

The MCR-01 VLA Sportster is a two-seat monoplane, powered by either a Rotax 912 UL or ULS engine, G-TOMX was powered by a Rotax 912 ULS. The engine and carburettors were configured in accordance with the manufacturer's installation guide. This did not require carburettor heating of any type to be fitted.

G-TOMX was built from a kit by the pilot from 2006 and completed its maiden flight in 2009. At the time of the accident the aircraft had a current Permit to Fly Certificate of Validity. According to the aircraft logbooks it had accrued 314.75 flying hours at its last permit renewal inspection in June 2024. The aircraft had flown approximately 5.5 hours<sup>1</sup> since the permit revalidation inspection and had not flown since February 2025.

During the aircraft's recent permit to fly revalidation check flight the stall warning operated at 69 kt with flaps UP and 64 kt with flaps FULL, the pilot recorded that buffet was observed at 63 kt and 53 kt in flaps UP and flaps FULL respectively.

The aircraft was fitted with an Arplast PV50 three bladed propeller, which was the original propeller fitted to the aircraft when it was built, and had recently been re-installed to replace a Helices E Props three bladed propeller that had been installed by the pilot via a LAA approved modification. Although the Arplast PV50 propeller was the one originally fitted to the aircraft, the re-installation of the propeller had not been inspected and signed off by a LAA inspector after the re-installation. A retrospective inspection and issuance of a Permit Maintenance Release (PMR) was completed on 13 November 2024. Once completed, the LAA issued the Permit to Fly Certificate of Validity on 14 November 2024. At the time the PMR was signed off the pilot was reminded of LAA Technical Leaflet TL2.05<sup>2</sup>, which

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### **Footnote**

<sup>1</sup> Aircraft hours taken from pilot's flying logbook.

<sup>2</sup> Pilot Authorised Maintenance TL2.05 <https://www.lightaircraftassociation.co.uk/infolibrary/d1803509-aaa4-480b-a7a3-1779cee9d85a> [accessed 23 December 2025].

describes what pilot maintenance can be carried out on an aircraft without inspection of a 'person authorised by the CAA' which for LAA aircraft is a LAA inspector. The replacement of the propeller was not listed as an item of pilot maintenance that could be completed without oversight of a LAA inspector.

G-TOMX was based at Shenstone Hall Airfield and was kept in a hangar rented by the pilot. It was the only aircraft kept in the hangar. The pilot kept a note of work carried out on the aircraft on a whiteboard in the hangar. Four items were identified on the whiteboard;

*'New fuel hose fitted: Return line, supply line from elec pump to manual pump, supply line to fuel sensor, vent line, drain line. Complete*

*Lock wire carb retaining springs: DONE*

*Coolant elbows on top of cylinder 2 and 4 removed & resealed: Done 29/3/25*

*Fuel tank phenol novolac, failed – ethanol damage! Found 30/3/25 = Repair complete'*

In addition to the whiteboard notes, the pilot had also communicated with a friend about the issues he was encountering and confirmed that prior to the accident flight he had resealed the coolant elbows on the engine and applied phenol novolac to the internal surfaces of the fuel tank.

Phenol novolac is a high-performance thermosetting resin that can be applied to the internal surfaces of composite fuel tanks to protect the internal surfaces against erosion associated with ethanol that is found in Mogas. In 2012 a modification to line the internal surfaces of MCR-01 fuel tanks was agreed with the LAA and applied to the fuel tank of G-TOMX. The modification is a very involved process requiring the fuel tank to be removed from the aircraft. The modification specifies that multiple operatives are needed to administer it, as the chemical must be prepared and immediately poured into the tank before it is manipulated to coat all internal surfaces. Once coated the residue is poured out of the tank and the remaining chemical is left to cure. A LAA Inspector must sign off the work at multiple stages throughout the process to ensure it has been carried out correctly.

There were no records indicating that a LAA inspector had signed off any of the work recorded on the hangar whiteboard.

### **Aircraft examination**

Due to the nature of the damage to the aircraft, it was not possible to complete any assessment of the airframe.

Although the engine block remained intact after the accident all external components including the ignition and carburation systems were destroyed. A limited examination of the engine was completed and found no abnormalities.

Although a fuel sample could not be taken from the aircraft, the owner kept a large quantity of fuel in the hangar. A sample of which was assessed under laboratory conditions and found to be consistent with E5 gasoline purchased from an automotive petrol station, which was an acceptable grade of fuel for this aircraft.

### **Weight and balance**

With a single pilot and any fuel load the aircraft would have been within the published weight and balance limitations.

### **Meteorology**

The conditions at the airstrip at the time of the accident were settled with an area of high pressure over the UK. There was patchy cumulus cloud with a base of 3,000 ft amsl. At Birmingham Airport, 11.5 nm south-south-east of the airstrip, the surface wind was light from the north-easterly direction, and the temperature was 13°C with a dew point of 0°C.

### **Airfield information**

Shenstone Hall is a private unlicensed airstrip 2 nm south of Lichfield, Staffordshire. The airstrip is in a rural location and surrounded by arable fields. It has a single grass runway of 600 m in length orientated 15/33.

### **CAA Guidance on single engine power loss**

The CAA has published guidance on engine failures during takeoff and whilst in the circuit. [Safety Sense leaflet SS12 – Strip Flying](#) gives advice on loss of power during this crucial stage of flight. This advises:

*'You should review the options in the event of an engine failure on takeoff. The obstacle environment may require turning in a particular direction. Have a picture in your head of what the area in front of you will look like in the event of a low-level engine failure. Do not consider making a turn-back manoeuvre, it is always safer to aim for a point in front of you or behind.'*

The CAA provide further guidance on engine failures at low level within [CAP1535, The Skyway Code](#). This advises:

*'Particularly at low level, focus on maintaining speed and control. Provided you keep the aircraft at flying speed and under control, engine failures are unlikely to be fatal'*

Within The Skyway Code the CAA advocate that the following key principles should be applied to all emergency situations.

- *'Know the aircraft – Memorise the checklists relating to time critical emergencies.'*
- *Fly the aircraft – Always adjust flight path to maintain speed.*

- *Assess the situation – Once aircraft is under control take a moment to assess the situation, do not jump to conclusions.*
- *Declare an emergency – If in doubt declare an emergency in good time’.*

## Analysis

With the extensive damage sustained by the aircraft as a result of the post-accident fire it has not been possible to positively determine the reason that the pilot attempted to return to the airfield in an expeditious fashion. Possible technical causes for pilot to return to the airfield were considered, such as an engine or electrical fire, loss of primary control surface continuity and power loss. Analysis of the flight recorded in the CCTV footage did not identify evidence of an in-flight fire and the flight profile suggested that the aircraft remained in control until the final moments of the flight when attempting to turn onto the runway heading. Ruling out an in-flight fire and loss of primary control continuity.

The condition of the propeller blades and the locations in which they were found on the accident site indicates that the engine was either at low power or not rotating when the aircraft struck the ground, suggesting that the aircraft had suffered a total or partial power loss beforehand

Ambient conditions at the time of the accident indicated moderate carburettor icing was possible. Taking into account that the engine installation for the MCR type of aircraft is such that the carburettors are less prone to icing issues. The carburettors fitted to the Rotax 912 ULS engines do not use a conventional butterfly valve also making them less susceptible to icing. It is therefore considered unlikely that carburettor icing was a factor in this accident.

Assessment of the engine did not reveal an obvious cause of an engine issue; but recent maintenance to the aircraft fuel system and engine that was recorded on the pilot's whiteboard in the aircraft's hangar and discussed with a friend may have introduced an issue that caused fuel disruption to the engine.

The LAA inspector who had recently inspected the aircraft had reminded the pilot of his obligations when conducting pilot maintenance to have it signed off appropriately in accordance with TL2.05, although it appears that this was not followed.

Having built and maintained the aircraft for over 15 years, the pilot will have been assured in his work, possibly further enforcing his confidence such that he felt additional inspection by an LAA inspector was not warranted.

The purpose of the flight and intentions of the pilot are unknown; however, as the aircraft had not flown since February that year and there was evidence to suggest that the pilot had recently conducted maintenance on the aircraft it is possible that the pilot was intending to complete a post maintenance check flight.

The pilot elected to turnback towards the airfield following the power loss from a downwind position. In doing so the aircraft flew close to fields that might have offered suitable options for an emergency forced landing. The MCR-01 has a relatively high stall speed and landing

back at the airstrip would not have been achievable from the position of the power loss. Although G-TOMX did not experience power loss during the climb out, the aircraft was close to the airfield at low level, and the same principles apply. There was a field close by that could have been used for an off airfield emergency landing. At the time of the power loss the aircraft did not have the performance to return to the runway it departed from. Therefore, the safest option would be to perform a forced landing in the fields nearby.

The pilot had not informed anyone about his intentions to fly G-TOMX that evening and there were no witnesses to the accident. This resulted in the aircraft only being found the following day. Had the pilot informed someone of his intentions they may have initiated overdue action; however this is unlikely to have changed the outcome of the accident.

### **Conclusion**

Shortly after takeoff the aircraft was seen on CCTV to attempt a return to the departure airstrip. Although it was not possible to positively confirm the reason the pilot elected to return to the airfield it is considered likely that the aircraft sustained a power loss. The cause of the power loss could not be determined, but it is possible that it was associated with recent maintenance of the fuel system. The maintenance was such that it should have been assessed and signed off by a LAA inspector, but it had not been. This observation serves as a reminder to pilots and owners of their obligations to follow the guidance provided by regulatory authorities and sporting associations in understanding the allowable limits of what maintenance can be undertaken without oversight and what must be inspected by an authorised inspector.

Having sustained an engine power loss, the pilot was confronted by a difficult decision to either attempt a return to the airfield or to make an off airfield forced landing. It is tempting for a pilot to try and return to a familiar landing area with a known landing surface. In this case, the pilot decided to return to the airfield but the aircraft did not have the height or required performance to safely do so. This accident once again highlights the need for pilots to avoid turning back to the airfield at low level following a loss of power. The advice provided by the CAA to fly the aircraft, maintaining flying speed and aim to land ahead reminds pilots of the safest option following a power loss at low height.

*Published 18 June 2026.*



## **AAIB Correspondence Reports**

These are reports on accidents and incidents which were not subject to a Field Investigation.

They are wholly, or largely, based on information provided by the aircraft commander in an Aircraft Accident Report Form (AARF) and in some cases additional information from other sources.

The accuracy of the information provided cannot be assured.



## Serious Incident

<b>Aircraft Type and Registration:</b>	Boeing 737-8, G-CRUX	
<b>No &amp; Type of Engines:</b>	2 CFM International SA LEAP-1B27G05 turbofan engines	
<b>Year of Manufacture:</b>	2018 (Serial no: 44863)	
<b>Date &amp; Time (UTC):</b>	22 April 2025 at 0630 hrs	
<b>Location:</b>	London Luton Airport	
<b>Type of Flight:</b>	Commercial Air Transport (Passenger)	
<b>Persons on Board:</b>	Crew - 6	Passengers - 162
<b>Injuries:</b>	Crew - None	Passengers - None
<b>Nature of Damage:</b>	None reported	
<b>Commander's Licence:</b>	Airline Transport Pilot's Licence	
<b>Commander's Age:</b>	61 years	
<b>Commander's Flying Experience:</b>	10,000 hours (of which 3,000 were on type) Last 90 days - not known Last 28 days - not known	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

## Synopsis

A change from the planned departure point led to the aircraft taking off with an incorrect power setting and rotating with fewer than 162 m of the paved runway surface remaining. A very shallow climb resulted in the aircraft reaching a height of 13 ft at the threshold. The operator reviewed its procedures and issued new guidance to crews.

## History of the flight

The crew was carrying out a scheduled early morning flight to Athens and had prepared the aircraft for a departure from Runway 25 at London Luton Airport (LTN) using data for the full length of the runway. The pilots checked the performance calculations to see if they could use Intersection 'A', and during the pushback clearance, notified ATC that they were able to accept an intersection departure. Approaching the holding point, the crew recalled checking the Onboard Performance Tool (OPT)<sup>1</sup> and believed they had updated the V speeds<sup>2</sup> in the Flight Management Computer (FMC) to the correct values. Subsequent Flight Data Monitoring (FDM) analysis showed the maximum thrust used during the takeoff was 82.1%

### Footnote

<sup>1</sup> The OPT is an electronic performance calculation tool used by flight crews to determine takeoff and landing performance for a specific aircraft, runway, and set of conditions.

<sup>2</sup> V speeds are defined airspeeds used during critical phases of flight, especially takeoff, climb, approach, and landing.

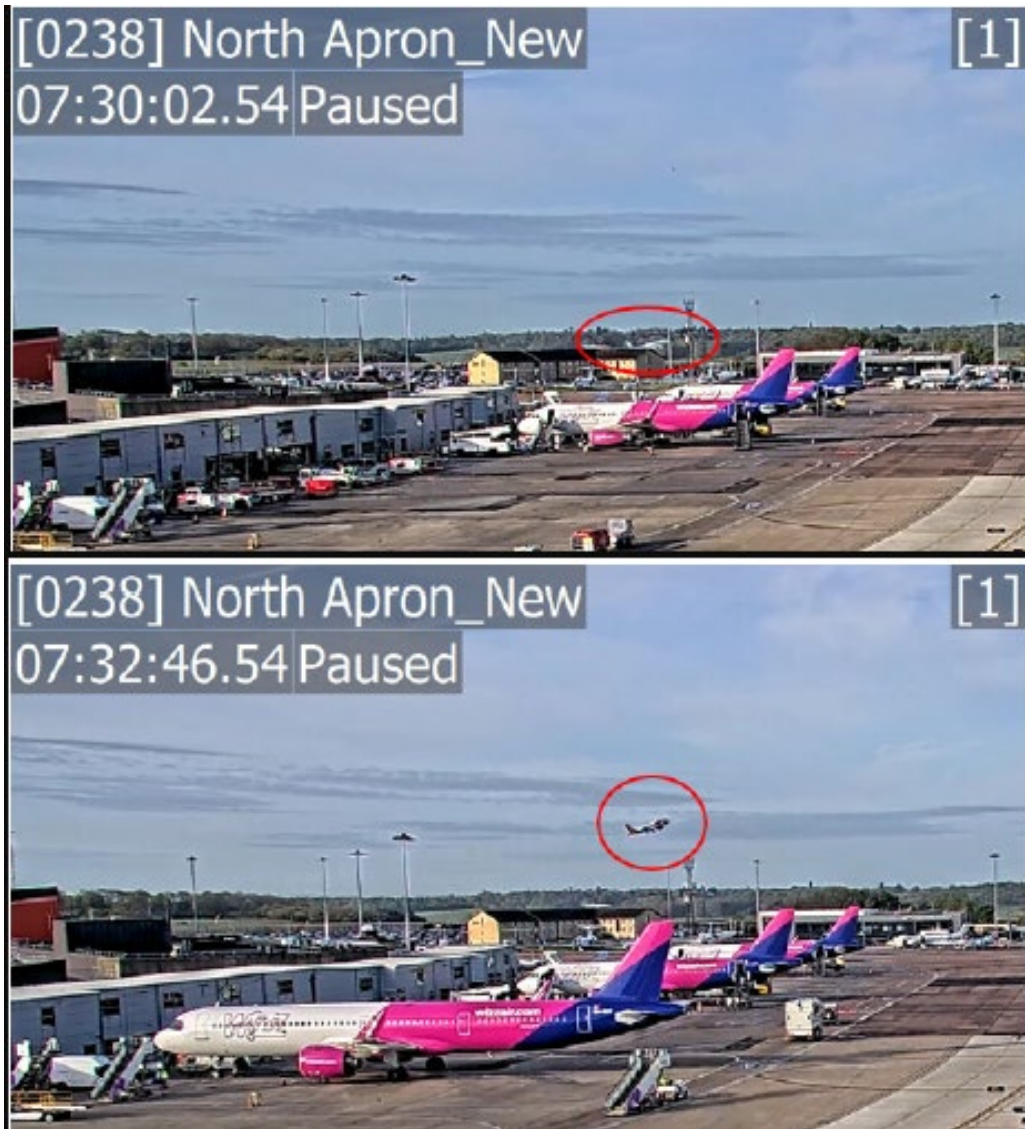
instead of the required 85.2% and the  $V_2$  speed was not changed between initial data entry during flight preparation and takeoff, which resulted in the aircraft lifting off 162 m from the end of the paved runway surface (Figure 1).



**Figure 1**

Flight Data overlay of Google satellite image showing the aircraft lift off point

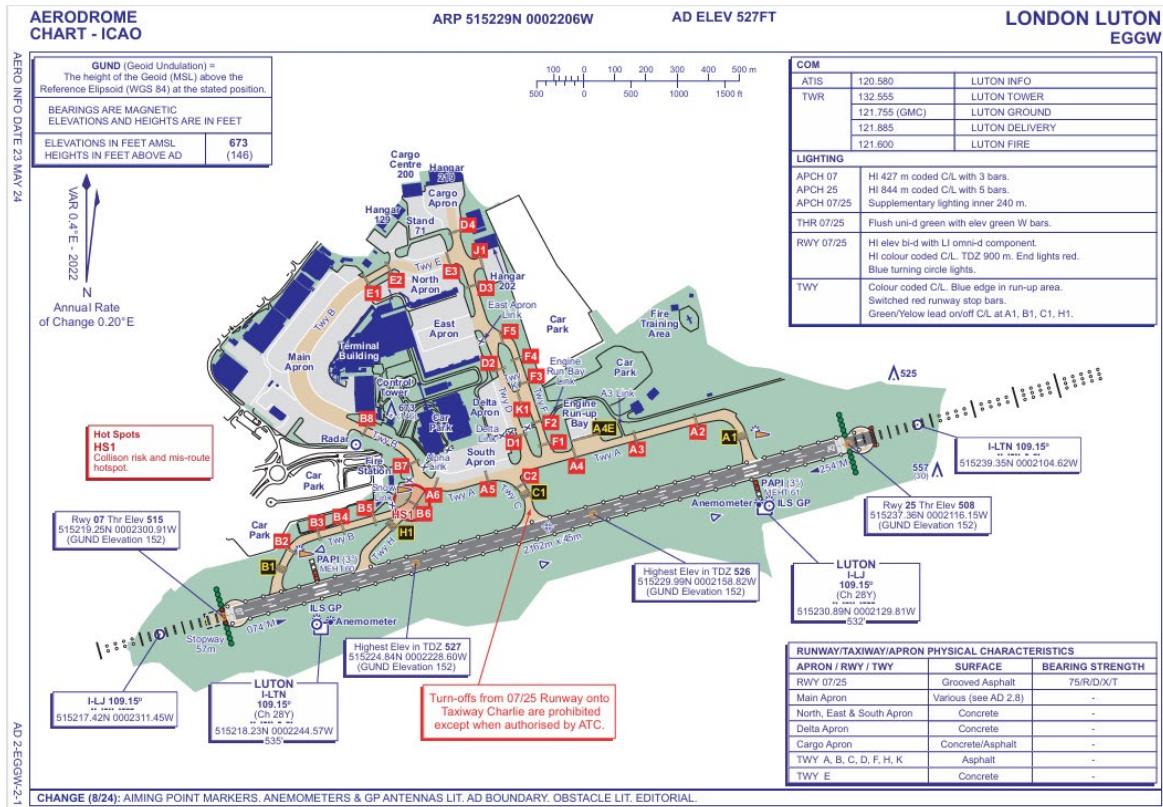
The aircraft crossed the end of the runway at an altitude of 13 ft agl. Reports from ATC described the aircraft appearing on radar climbing through 900 ft agl at approximately 0.8 nm from the airfield. Under normal circumstances the aircraft would appear much closer to the airfield at that height. CCTV from LTN ATC showed two images, one of the incident aircraft and a representative departure a few minutes later (Figure 2).



**Figure 2**

Images from LTN ATC CCTV

The upper image is the incident aircraft, the lower image is a representative departure



**Figure 3**  
 London Luton Aerodrome Chart (correct Apr 2025)

The declared TORA<sup>3</sup> from A was 1,771 m and the calculated required thrust was 85.2%.

Full length TORA was 2,116 m and the calculated required thrust was 81.4%.

FDM data showed that the maximum achieved thrust during takeoff was 82.1%. It is not possible to determine if this was a result of the autothrottle setting a slightly higher value than required or if it was manually set by the pilot.

A full length takeoff on Runway 25 is achieved by the aircraft entering the runway through the holding point at A1 and turning left to the end of the runway where there is sufficient room to complete a 180° turn.

Performance calculations are carried out to ensure that the aircraft has sufficient runway remaining to stop should a failure occur at a critical speed and also meets certain criteria during the climb to provide minimum height clearance from obstacles.

**Footnote**

<sup>3</sup> TORA (TakeOff Run Available) is the length of runway available for an aircraft's ground run during takeoff.

## Conclusion

The crew accepted a change to their planned departure point but did not verify that the takeoff performance was correctly entered in the FMC. This resulted in a lower power setting than required, and a long takeoff roll and slow climb out. If the aircraft had suffered a loss of thrust during takeoff, there was a potential that it would not have been able to stop on the remaining paved surface following a decision to reject the takeoff or, alternatively, achieve minimum height clearances during departure following a decision to continue the takeoff.

## Accident

<b>Aircraft Type and Registration:</b>	Westland Scout AH1, G-BWHU	
<b>No &amp; Type of Engines:</b>	1 Rolls-Royce Nimbus Mk 10501 turboshaft engine	
<b>Year of Manufacture:</b>	1964 (Serial no: F9517)	
<b>Date &amp; Time (UTC):</b>	24 April 2026 at 1225 hrs	
<b>Location:</b>	Turweston Aerodrome, Buckinghamshire	
<b>Type of Flight:</b>	Training	
<b>Persons on Board:</b>	Crew - 2	Passengers - None
<b>Injuries:</b>	Crew - 2 (Minor)	Passengers - N/A
<b>Nature of Damage:</b>	Significant damage to skids, tail cone, tail rotor transmission and tail rotor	
<b>Commander's Licence:</b>	Commercial Pilot's Licence	
<b>Commander's Age:</b>	67 years	
<b>Commander's Flying Experience:</b>	5,500 hours (of which 352 were on type) Last 90 days - 79 hours Last 28 days - 36 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

## Synopsis

The helicopter was lifting off having been refuelled at Turweston Aerodrome. As the pilot commenced a pedal turn to the left, the helicopter rapidly rotated to the right. The pilot took immediate action to counter the rotation but with no effect. The helicopter landed heavily and its main rotors struck the tail boom causing substantial damage to the tail rotor drive train. The exact cause of the loss of control could not be determined.

## History of the flight

The helicopter was on a repositioning and revision flight with its owner and an instructor, conducting a Scout type rating course. The aircraft had landed at Turweston to refuel. There was an estimated 5 to 8 kt wind from 090° and the helicopter had been positioned 90° out of wind to enable ease of refuelling from the bowser. With refuelling complete, pre-flight checks were carried out and the instructor noted the position of another fixed wing aircraft in front and to the right of the helicopter. The instructor advised the pilot that a vertical takeoff would be appropriate and then to move sideways away from the parked aircraft observing the downwash during the manoeuvre.

The pilot did as suggested, and gently lifted into the hover, and as planned, there was no observable effect on the parked aircraft. However, to further reduce perceived risk the instructor took control of the helicopter and slowly moved it to the left to then turn into wind.

The instructor then commenced a pedal turn to the left and as he did so, the helicopter suddenly rotated in the opposite direction to the right. The rate of rotation increased. He applied full left yaw which appeared to have no effect. Thinking there was a problem with the tail rotor he closed the throttle and as the helicopter settled, he raised the collective to cushion the landing.

The helicopter landed heavily damaging the skids and causing the main rotors to droop whilst rotating and strike the tail boom (Figure 1). This resulted in significant disruption to the tail rotor drive system shafts and support bearings. The pilot and instructor were uninjured.



**Figure 1**

G-BWHU immediately after landing

### **Aircraft examination**

The aircraft was examined onsite and the extensive damage to the structure surrounding the tail rotor drive shafts and transmission system was indicative of the main rotor blades striking the tail boom. It was also found that the tail rotor blades had also contacted the ground sustaining damage during the landing, shock loading and further damaging the drive train. There was no evidence of pre-existent faults or malfunctions that could have contributed to this accident. Foreign object or an external control restriction was also considered but no evidence was found.



**Figure 2**

Tail rotor drive system and fairing blade strike location

### Analysis

The instructor and pilot of the aircraft were perplexed as to the cause of the accident as the takeoff had been benign in calm weather conditions with no obvious factors that could have led to a loss of control. To assist in their understanding of the accident, they presented the circumstances to a rotary wing test pilot and instructor with experience on a range of helicopters including the Westland Wasp and Scout. A summary of observations and analysis are as follows.

In the absence of a technical malfunction and taking into consideration the relatively calm and unchallenging conditions at the time, along with the simplicity of the manoeuvre, an obvious cause was not clear. The vigorous yaw of the helicopter and its apparent failure to react to corrective inputs, seemed to suggest the characteristics of a loss of tail rotor effectiveness. However, in service experience with the Wasp and Scout helicopter does not show they were prone to this sort of occurrence.

Further discussion between the pilot and another experienced Scout pilot suggested that slightly different but lesser known tail rotor effect, called tail rotor breakaway, may have been a contributory factor. Tail rotor breakaway was considered to be more akin to blade stall under certain combinations of light airflows.

However, faced with the rapid yaw, the instructor took actions in accordance with the Scout emergency procedures in the Flight Reference Cards. He correctly closed the throttle to reduce torque and slow the yaw and then cushion the landing by raising the collective. The proximity to the ground left very little time to react and resulted in the unavoidable heavy landing.

### **Conclusion**

The helicopter was being flown within its capabilities in unchallenging conditions when the loss of control occurred. In the absence of a technical fault or malfunction, the exact cause of the loss of control could not be identified. However, it appeared to demonstrate the characteristics of a loss of tail rotor effectiveness, but this was considered to have been unusual in this type of helicopter. Similarly the concept of tail rotor breakaway was also considered but could not be positively determined.



## **AAIB Record-Only Investigations**

This section provides details of accidents and incidents which were not subject to a Field or full Correspondence Investigation.

They are wholly, or largely, based on information provided by the aircraft commander at the time of reporting and in some cases additional information from other sources.

The accuracy of the information provided cannot be assured.



**Record-only UAS investigations reviewed: April - May 2026**

- 9 Apr 2026**     **Tekever AR3**     Aberporth Airport, Ceredigion  
Whilst transitioning to fixed wing flight from vertical takeoff and landing (VTOL) flight the UA entered a stall, resulting in the loss of control of the aircraft. The observer attempted to remotely deploy the parachute, but there was insufficient time to inflate the canopy and arrest the descent. The UA struck the ground resulting in substantial aircraft damage. An assessment of the event by the operator identified that the remote pilot (RP) had missed a cross check to confirm sufficient forward speed had been achieved before transition. The operator is now using this scenario during RP recurrence training to raise awareness of this issue.
- 10 Apr 2026**     **AlphaRay**     Dunraven Bay, Bridgend  
During hovering flight, the UA electric motors shut down causing the UA to descend into water. Owing to the extent of damage, it is not known what led to the motors shutting down.
- 26 Apr 2026**     **MA Irvine Wild Card**     Near Puttenham, Surrey  
The model aircraft (MA) was being flown at a model flying club in a rural area when it became unresponsive to control inputs. The MA entered a descending turn toward the ground and struck the front bumper of a car travelling down a private track adjacent to the field. Although the MA was destroyed, the battery survived and had about 50% charge remaining. It was not determined why the MA stopped responding to control inputs.
- 20 May 2026**     **DJI Mini 5**     Sutton, Greater London  
Whilst carrying out a survey of high voltage power lines, the UA was caught by a gust of wind. The UA struck the power line and then descended to the ground.
- 22 May 2026**     **DJI Mavic 3**     Prenton, Merseyside  
The UA struck the side of a building whilst undertaking commercial filming. Minor damage was sustained to the UA.
- 26 May 2026**     **MA Kiel Kraft Falcon**     Shillito Wood, Derbyshire  
The 4 kg MA was being operated at a model aircraft flying club in a remote area when it stopped responding to control inputs, following a loss of radio link. The aircraft experienced a flyaway and has not been found.



## **Miscellaneous**

This section contains Addenda, Corrections and a list of the ten most recent Aircraft Accident ('Formal') Reports published by the AAIB.

The complete reports can be downloaded from the AAIB website ([www.aaib.gov.uk](http://www.aaib.gov.uk)).



## **TEN MOST RECENTLY PUBLISHED FORMAL REPORTS ISSUED BY THE AIR ACCIDENTS INVESTIGATION BRANCH**

- |   |  |
|---|--|
| 3/2015 Eurocopter (Deutschland)<br>EC135 T2+, G-SPAO<br>Glasgow City Centre, Scotland<br>on 29 November 2013.<br><br>Published October 2015.  | 2/2018 Boeing 737-86J, C-FWGH<br>Belfast International Airport<br>on 21 July 2017.<br><br>Published November 2018.               |
| 1/2016 AS332 L2 Super Puma, G-WNSB<br>on approach to Sumburgh Airport<br>on 23 August 2013.<br><br>Published March 2016.                      | 1/2020 Piper PA-46-310P Malibu, N264DB<br>22 nm north-north-west of Guernsey<br>on 21 January 2019.<br><br>Published March 2020. |
| 2/2016 Saab 2000, G-LGNO<br>approximately 7 nm east of<br>Sumburgh Airport, Shetland<br>on 15 December 2014.<br><br>Published September 2016. | 1/2021 Airbus A321-211, G-POWN<br>London Gatwick Airport<br>on 26 February 2020.<br><br>Published May 2021.                      |
| 1/2017 Hawker Hunter T7, G-BXFI<br>near Shoreham Airport<br>on 22 August 2015.<br><br>Published March 2017.                                   | 1/2023 Leonardo AW169, G-VSKP<br>King Power Stadium, Leicester<br>on 27 October 2018.<br><br>Published September 2023.           |
| 1/2018 Sikorsky S-92A, G-WNSR<br>West Franklin wellhead platform,<br>North Sea<br>on 28 December 2016.<br><br>Published March 2018.           | 2/2023 Sikorsky S-92A, G-MCGY<br>Derriford Hospital, Plymouth,<br>Devon<br>on 4 March 2022.<br><br>Published November 2023.      |

Unabridged versions of all AAIB Formal Reports, published back to and including 1971,  
are available in full on the AAIB Website

<http://www.aaib.gov.uk>

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## GLOSSARY OF ABBREVIATIONS

aal	above airfield level	kt	knot(s)
ACAS	Airborne Collision Avoidance System	lb	pound(s)
ACARS	Automatic Communications And Reporting System	LP	low pressure
ADF	Automatic Direction Finding equipment	LAA	Light Aircraft Association
AFIS(O)	Aerodrome Flight Information Service (Officer)	LDA	Landing Distance Available
agl	above ground level	LPC	Licence Proficiency Check
AIC	Aeronautical Information Circular	m	metre(s)
amsl	above mean sea level	mb	millibar(s)
AOM	Aerodrome Operating Minima	MDA	Minimum Descent Altitude
APU	Auxiliary Power Unit	METAR	a timed aerodrome meteorological report
ASI	airspeed indicator	min	minutes
ATC(C)(O)	Air Traffic Control (Centre)( Officer)	mm	millimetre(s)
ATIS	Automatic Terminal Information Service	mph	miles per hour
ATPL	Airline Transport Pilot's Licence	MTWA	Maximum Total Weight Authorised
BMAA	British Microlight Aircraft Association	N	Newtons
BGA	British Gliding Association	$N_R$	Main rotor rotation speed (rotorcraft)
BBAC	British Balloon and Airship Club	$N_g$	Gas generator rotation speed (rotorcraft)
BHPA	British Hang Gliding & Paragliding Association	$N_i$	engine fan or LP compressor speed
CAA	Civil Aviation Authority	NDB	Non-Directional radio Beacon
CAVOK	Ceiling And Visibility OK (for VFR flight)	nm	nautical mile(s)
CAS	calibrated airspeed	NOTAM	Notice to Airmen
cc	cubic centimetres	OAT	Outside Air Temperature
CG	Centre of Gravity	OPC	Operator Proficiency Check
cm	centimetre(s)	PAPI	Precision Approach Path Indicator
CPL	Commercial Pilot's Licence	PF	Pilot Flying
°C,F,M,T	Celsius, Fahrenheit, magnetic, true	PIC	Pilot in Command
CVR	Cockpit Voice Recorder	PM	Pilot Monitoring
DME	Distance Measuring Equipment	POH	Pilot's Operating Handbook
EAS	equivalent airspeed	PPL	Private Pilot's Licence
EASA	European Union Aviation Safety Agency	psi	pounds per square inch
ECAM	Electronic Centralised Aircraft Monitoring	QFE	altimeter pressure setting to indicate height above aerodrome
EGPWS	Enhanced GPWS	QNH	altimeter pressure setting to indicate elevation amsl
EGT	Exhaust Gas Temperature	RA	Resolution Advisory
EICAS	Engine Indication and Crew Alerting System	RFFS	Rescue and Fire Fighting Service
EPR	Engine Pressure Ratio	rpm	revolutions per minute
ETA	Estimated Time of Arrival	RTF	radiotelephony
ETD	Estimated Time of Departure	RVR	Runway Visual Range
FAA	Federal Aviation Administration (USA)	SAR	Search and Rescue
FDR	Flight Data Recorder	SB	Service Bulletin
FIR	Flight Information Region	SSR	Secondary Surveillance Radar
FL	Flight Level	TA	Traffic Advisory
ft	feet	TAF	Terminal Aerodrome Forecast
ft/min	feet per minute	TAS	true airspeed
g	acceleration due to Earth's gravity	TAWS	Terrain Awareness and Warning System
GNSS	Global Navigation Satellite System	TCAS	Traffic Collision Avoidance System
GPS	Global Positioning System	TODA	Takeoff Distance Available
GPWS	Ground Proximity Warning System	UA	Unmanned Aircraft
hrs	hours (clock time as in 1200 hrs)	UAS	Unmanned Aircraft System
HP	high pressure	USG	US gallons
hPa	hectopascal (equivalent unit to mb)	UTC	Co-ordinated Universal Time (GMT)
IAS	indicated airspeed	V	Volt(s)
IFR	Instrument Flight Rules	$V_1$	Takeoff decision speed
ILS	Instrument Landing System	$V_2$	Takeoff safety speed
IMC	Instrument Meteorological Conditions	$V_R$	Rotation speed
IP	Intermediate Pressure	$V_{REF}$	Reference airspeed (approach)
IR	Instrument Rating	$V_{NE}$	Never Exceed airspeed
ISA	International Standard Atmosphere	VASI	Visual Approach Slope Indicator
kg	kilogram(s)	VFR	Visual Flight Rules
KCAS	knots calibrated airspeed	VHF	Very High Frequency
KIAS	knots indicated airspeed	VMC	Visual Meteorological Conditions
KTAS	knots true airspeed	VOR	VHF Omnidirectional radio Range
km	kilometre(s)		

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