

Aircraft Accident Report No: 3/2014

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**Report on the accident to
Agusta A109E, G-CRST
near Vauxhall Bridge, Central London
16 January 2013**

Registered Owner and Operator:	Owned by Castle Air Ltd; operated by Rotormotion
Aircraft Type:	Agusta A109E
Nationality:	British
Registration:	G-CRST
Place of Accident:	St George Wharf, Vauxhall, London
Date and Time:	16 January 2013 at 0759 hrs

Synopsis

At 0820 hrs on 16 January 2013 the Air Accidents Investigation Branch (AAIB) was notified that a helicopter flying over central London had collided with a crane and crashed into the street near Vauxhall Bridge. A team of AAIB inspectors and support staff arrived on the scene at 1130 hrs.

The helicopter was flying to the east of London Heliport when it struck the jib of a crane, attached to a building development at St George Wharf, at a height of approximately 700 ft amsl in conditions of reduced meteorological visibility. The pilot, who was the sole occupant of the helicopter, and a pedestrian were fatally injured when the helicopter impacted a building and adjacent roadway.

The investigation identified the following causal factors:

1. The pilot turned onto a collision course with the crane attached to the building and was probably unaware of the helicopter's proximity to the building at the beginning of the turn.
2. The pilot did not see the crane or saw it too late to take effective avoiding action.

The investigation identified the following contributory factor:

1. The pilot continued with his intention to land at the London Heliport despite being unable to remain clear of cloud.

Ten Safety Recommendations have been made.

Findings

1. The pilot was properly licensed and qualified to conduct the flight.
2. No evidence was identified of a pre-existing technical defect that was causal or contributory to the accident.
3. The pilot was aware that there was freezing fog over London and that there was a possibility that it would be present at Elstree Aerodrome.
4. The weather at Redhill Aerodrome was suitable for the helicopter's departure.
5. The pilot did not land at Elstree Aerodrome because the weather was unsuitable.
6. Unable to land at Elstree Aerodrome, the pilot requested ATC clearance to return to Redhill Aerodrome.
7. The pilot was cleared by ATC to transit the London CTR under VFR or Special VFR at his discretion.
8. While en route to Redhill Aerodrome, the pilot received a text from the client telling him that London Heliport was open and the pilot asked ATC to confirm that this was the case.
9. Having been told that London Heliport was open, it is probable that the pilot's intention was to land there.
10. London Heliport is closed when its reported meteorological conditions are below a visibility of 1,000 m and a cloud ceiling of 600 ft agl.
11. The pilot did not know the current weather conditions at London Heliport at the time the helicopter began its descent towards the River Thames.
12. The pilot was operating under Special VFR from the time the helicopter began its descent towards the River Thames.
13. The helicopter entered restricted area R157 without permission.
14. The pilot was probably unable to remain continuously clear of cloud as the helicopter approached Vauxhall Bridge.
15. The pilot did not adjust his plan to land at London Heliport when he encountered increasingly challenging weather conditions as the helicopter descended towards, and routed onto, helicopter route H4.
16. ATC cleared the pilot to proceed to London Heliport and he began a turn towards the building at St George Wharf. At the time he began the turn, he was probably unaware of the building's proximity.

17. The pilot was possibly distracted by the task of changing radio frequency as he entered the turn towards the building.
18. The helicopter struck a crane attached to the building. At the point of impact, the helicopter was approximately 105 ft from the building.
19. The presence of the crane at St George Wharf was notified through the NOTAM system.
20. There is no requirement for Local Planning Authorities to notify the CAA when granting planning permission for obstacles extending above 300 ft agl when those obstacles are outside safeguarded areas.
21. Between the time of construction of the building and implementation of amended ATC procedures, ATC controllers possibly, and inadvertently, issued clearances compliance with which would breach Rule 5 of the Rules of the Air Regulations.
22. Two-way traffic along helicopter route H4 is no longer possible in certain circumstances using current procedures following construction of the building at St George Wharf.
23. The building at St George Wharf was added to the UK DVOF by coincidence rather than through a systematic process.
24. The building at St George Wharf was not included in the helicopter's obstacle databases.
25. There is no effective system in place to anticipate the potential effects of new obstacles on existing airspace arrangements when the obstacles are outside safeguarded areas.

Causal Factors

1. The pilot turned onto a collision course with the crane attached to the building and was probably unaware of the helicopter's proximity to the building at the beginning of the turn.
2. The pilot did not see the crane or saw it too late to take effective avoiding action.

Contributory Factor

1. The pilot continued with his decision to land at the London Heliport despite being unable to remain clear of cloud.

Safety Recommendations

Safety Recommendation 2014-025

It is recommended that the Civil Aviation Authority require UK Air Navigation Service Providers to assess the effect of obstacles, notified through the UK Aeronautical Information Regulation and Control cycle, on operational procedures relating to published VFR routes near those obstacles, and modify procedures to enable pilots to comply simultaneously with ATC instructions, and the Air Navigation Order and Commission Implementing Regulation (EU) 923/2012 as applicable.

Safety Recommendation 2014-026

It is recommended that the Civil Aviation Authority require UK Air Navigation Service Providers to assess the effect of obstacles, notified through the UK Aeronautical Information Regulation and Control cycle, on operational procedures for controlling non-IFR flights within the Control Areas and Control Zones surrounding UK airports, and modify procedures to enable pilots to comply simultaneously with ATC instructions, and the Air Navigation Order and Commission Implementing Regulation (EU) 923/2012 as applicable.

Safety Recommendation 2014-027

It is recommended that the Department for Transport implement, as soon as practicable, a mechanism compliant with Regulation (EU) 73/2010 and applicable to the whole of the UK for the formal reporting and management of obstacle data, including a requirement to report data relating to newly permitted developments.

Safety Recommendation 2014-028

It is recommended that the Department for Transport remind all recipients of the Office of the Deputy Prime Minister Circular 01/2003 that they are requested to notify the Civil Aviation Authority:

1. whenever they grant planning permission for developments which include an obstacle
2. about obstacles not previously notified
3. about obstacles previously notified that no longer exist.

Safety Recommendation 2014-029

It is recommended that The Scottish Government remind all recipients of Planning Circular 2/2003 that they are requested to notify the Civil Aviation Authority:

1. whenever they grant planning permission for developments which include an obstacle
2. about obstacles not previously notified
3. about obstacles previously notified that no longer exist.

Safety Recommendation 2014-030

It is recommended that the Department for Transport implement measures that enable the Civil Aviation Authority to assess, before planning permission is granted, the potential implications of new en-route obstacles for airspace arrangements and procedures.

Safety Recommendation 2014-031

It is recommended that the Civil Aviation Authority review Federal Aviation Regulations Part 135 Rules 135.615, *VFR Flight Planning*, and 135.617, *Pre-flight Risk Analysis*, to assess whether their implementation would provide safety benefits for those helicopter operations within the UK for which it is the regulatory authority.

Safety Recommendation 2014-032

It is recommended that the European Aviation Safety Agency review Federal Aviation Regulations Part 135 Rules 135.615, *VFR Flight Planning*, and 135.617, *Pre-flight Risk Analysis*, in advance of the scheduled regulatory standardisation programme, to assess whether their immediate implementation would provide safety benefits for helicopter operations within Europe.

Safety Recommendation 2014-033

It is recommended that the Civil Aviation Authority assess whether mandating the use of Helicopter Terrain Awareness and Warning Systems compliant with Technical Standard Order C194 or European Technical Standard Order C194 would provide safety benefits for helicopter operations within the UK for which it is the regulatory authority.

Safety Recommendation 2014-034

It is recommended that the European Aviation Safety Agency assess whether mandating the use of Helicopter Terrain Awareness and Warning Systems compliant with Technical Standard Order C194 or European Technical Standard Order C194 would provide safety benefits for helicopter operations within Europe.