

AIRCRAFT INCIDENT REPORT No 5/95

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REPORT ON THE INCIDENT TO BELL 214ST, G-BKJD ON 6 DECEMBER 1994 NEAR THE PETROJARL 1, A FLOATING STORAGE VESSEL IN THE EAST SHETLAND BASIN

SUMMARY

The incident occurred at night during an attempt to land 15 passengers on the helideck of the Petrojarl 1 when the severity of the deck movements and air turbulence were such that the commander decided to abandon the landing and return to the mainland. During the go-around manoeuvre and initial climb in significant turbulence the aircraft lost forward airspeed and, under the influence of a strong headwind component, it drifted backwards towards the vessel. At a position close to the vessel's overhead at about 600 feet above sea level the commander, who was handling the aircraft, believed that it was no longer responding normally to control inputs and he diagnosed an incipient vortex ring condition. Both pilots became involved in the recovery from this condition and the aircraft entered a steeper than intended dive from which recovery was completed at a height of about 66 feet above the sea. There were no injuries.

The investigation identified the following causal factors:

- (i) There were severe levels of turbulence close to the Petrojarl 1 brought about by the general weather situation combined with microburst activity generated by an adjacent cumulo-nimbus cloud.
- (ii) The information available to the crew did not alert them to the potential influence of the cumulo-nimbus adjacent to the Petrojarl 1.
- (iii) The commander lacked recent experience in operations by night to platforms in difficult weather conditions.
- (iv) The crew did not maintain an accelerative pitch attitude in the severe turbulence experienced during the transition to climbing flight.
- (v) The procedures for transition from the hover outside ground effect into climbing forward flight by sole reference to the flight instruments were inadequately defined.
- (vi) The procedures for recovery, on instruments, from circumstances involving an unintentional loss of airspeed were not fully documented.

The following safety recommendations were made during the course of the investigation:

It was recommended to the CAA that the Authority should require commercial helicopter operators to provide their pilots with guidance on avoiding microbursts.

[Safety Recommendation 95-29]

It was recommended to the CAA that they should require the documentation of procedures for helicopter transitions by sole reference to instruments from the hover into forward flight.

[Safety Recommendation 95-30]

It was recommended to the CAA that training and testing for go-arounds by sole reference to instruments from the hover outside ground effect should be a formal requirement for all helicopter pilots employed in night, offshore tasks.

[Safety Recommendation 95-31]

It was recommended that the CAA should require that training and practice on recovery from attitudes resulting from unintentional loss of airspeed should be included in the training which is already part of the biannual base check.

[Safety Recommendation 95-32]

It was recommended to the CAA that recency requirements for pilots employed on night offshore operations should be reviewed. [Safety Recommendation 95-33]