



EASA Safety Information Bulletin

SIB No.: 2012-18
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- Subject:** **Potential effects of inflated floats or float-type landing gears on flight characteristics of helicopters**
- Ref. Publication:** Bureau d'Enquêtes et d'Analyses pour la sécurité de l'aviation civile (BEA) Accident Report Ref. f-ib050921 available at: [Robinson R22 Mariner](#)
- Applicability:** All helicopters fitted with float-type landing gear or inflated emergency floatation equipment.
- Description:** Two accidents have occurred to European registered helicopters fitted with float-type landing gear during a simulated engine failure and the execution of an autorotation descent.
 In the context of a Helicopter Private Pilot Licence skill test with an examiner, the crew took off, left the circuit and climbed to 1500ft. A few minutes later, the helicopter collided with the ground. The investigation determined that the crew lost control of the aircraft. Another fatal accident occurred in a similar context of a training flight in 2004.
- The Safety Investigation Authority has established as probable cause, that the two accidents were likely due to improper execution of an autorotation descent during a simulated engine failure exercise by reducing the engine power. The presence of float-type landing gear modified the helicopter's handling characteristics and contributed to both events.
- This SIB is published to raise pilot awareness of the potential effects on handling characteristics of float-type landing gears fitted on helicopters.
- At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant Airworthiness Directive (AD) action under Commission Regulation (EU) No [748/2012](#), Part 21.A.3B.

This is information only. Recommendations are not mandatory.

Recommendation(s): EASA recommends that pilots should be aware of the potential effects of float-type landing gear or inflated emergency floatation equipment on flight characteristics of helicopters, particularly during the execution of an autorotation descent.

Indeed, inflated floats on helicopters can cause adverse roll characteristic; when side slipping nose left or right the helicopter will tend to roll in the opposite direction. To avoid adverse roll, the helicopter has to be kept trimmed with zero sideslip and extreme caution should be exercised when performing any autorotation descent, for engine failure training or otherwise. Failure to do so could lead to a rapid loss of control.

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