

HELICOPTERS

## No. 3558-S-22

# **SAFETY INFORMATION NOTICE**

### **SUBJECT: AUTO FLIGHT**

Use of 4-axis digital AFCS



| AIRCRAFT<br>CONCERNED | Version(s)                 |            |
|-----------------------|----------------------------|------------|
|                       | Civil                      | Military   |
| AS365                 | N3                         | К2         |
| AS565                 |                            | МВе        |
| SA366                 |                            | GA         |
| EC155                 | B1                         |            |
| SA330                 |                            | Jm, Sm     |
| EC225                 | LP                         |            |
| EC725                 |                            | AP         |
| AS332                 | L1                         | M1         |
| EC175                 | В                          |            |
| MBB-BK117             | D-2, D-2m, D-3, D-3m       | D-2m, D-3m |
| EC135H                | T3H, P3H, 635 T3H, 635 P3H |            |

#### INTRODUCTION

Airbus Helicopters has recently participated in investigations further to some incidents and accidents. The conclusion of the analysis was that an appropriate use of the AFCS Upper Modes could have prevented these incidents and accidents. These events lead Airbus Helicopters to remind you of some relevant information and recommendations related to the AFCS Upper Modes.

The recent ranges of Airbus Helicopters twin-engine helicopters are equipped with a 4-axis digital AFCS, which is designed to significantly reduce the pilot's workload.

The digital AFCS provides basic stabilization modes (long term attitude retention, fly-through modes, etc.) and Upper Modes (longitudinal modes, lateral modes, combined modes, navigation/approach modes, etc.).

The use of the associated Upper Modes in 4-axis mode will provide protections and assist the crew in maintaining the aircraft inside its flight envelope, in particular by:

- using all the available power without exceeding limitations
- avoiding the exceedance of the VNE
- avoiding inadvertent desynchronization and NR overspeed
- avoiding a Vortex ring state
- preventing ground collision.

Revision 0 2020-12-03

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#### RECOMMENDATIONS

AIRBUS

- 1. IT IS HIGHLY RECOMMENDED TO FLY IN 4-AXIS MODE IN ALL COMPATIBLE FLIGHT PHASES.
- 2. IT IS IMPORTANT TO MAKE SURE THAT THE AFCS UPPER MODES HAVE BEEN PROPERLY SET AND COUPLED.
- 3. AVOID ANY HANDS-ON ACTIONS, WHICH CAN OVERRIDE THE AFCS. IF ANY INADVERTENT UNUSUAL POSITION ATTITUDES OR UNDESIRABLE AIRCRAFT STATES OCCUR, THE USE OF THE GO AROUND MODE AND/OR AP RECOVERY (for all A/C fitted with Helionix ©) WILL HELP RETURNING THE AIRCRAFT TO A SAFE CONDITION.

#### **NOTES**

- a) Like all the other Upper Modes, the Go Around mode can operate in a slightly different manner depending on the Aircraft and Autopilot software versions.
- b) Make sure that you know the functionalities of the AFCS corresponding to the software version loaded on the aircraft. Refer to the record of aircraft configuration/installed software versions and the AFCS system description given in the complementary Rotorcraft Flight Manual (RFM) and the related Flight Operation Briefing Notes (FOBN).
- c) The best use of automation, good practices and a detailed description of the Upper Modes are available either in the applicable Rotorcraft Flight Manual or FOBN or in the Flight Crew Operating Manual (FCOM), if issued.
- d) The RFM and FCOM, if issued, are available through the Airbus Helicopters Customer portal "AirbusWorld", as per subscription.
  FOBNs are available on the Airbus Helicopters website for Technical Information Publication on Internet (T.I.P.I.): <u>www.airbushelicopters.com/techpub/</u>