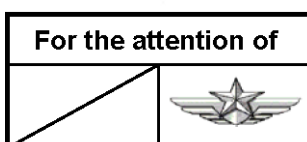



 Effective for version(s): T2, T2+  
 635 T2+

# ALERT SERVICE BULLETIN

**SUBJECT: ENGINE CONTROLS – Training Mode**

**Limits for the OEI training (FMS 9.1–4, FMS 9.1–8) prior to modifications  
 TU 146 respectively TU 147**



Revision number	Issue date
Revision 0	2012-11-06
Revision 1	2015-05-11
Revision 2	2018-03-26

**Summary:**

During a test flight with an AHD test helicopter, an inadvertent power loss followed by a rotor speed decrease occurred while the engine training mode was checked. As it cannot be ruled out by the engine manufacturer that this behavior might also occur in serial helicopters, this Alert Service Bulletin (ASB) limits the use of the training mode.

The modifications TU 146 or TU 147 provided by Safran include a software upgrade. Once one of the the modifications has been implemented, the restrictions given above are no longer applicable.

**Reason for the Revision 1:**

By way of Service Bulletin 319 73 2146, the engine manufacturer Safran offers the modification TU 146. Once the modifications TU 146 have been implemented, the restriction specified in ASB EC135-76A-003 is no longer applicable.

**Reason for the Revision 2:**

By way of Service Bulletin 319 73 2147, the engine manufacturer Safran additionally offers the modification TU 147. Once the modifications TU 147 have been implemented, the restriction specified in ASB EC135-76A-003 is no longer applicable.

**Compliance:**

Observe the restrictions regarding “Before modification TU 146 or TU 147” specified in the Flight Manual.

## **1. PLANNING INFORMATION**

### **1.A. EFFECTIVITY**

#### **1.A.1. Helicopters/installed equipment and parts**

EC135/EC635 equipped with T2 or T2+ engines before implementation of modifications TU 146 or TU 147.

#### **1.A.2. Non-installed equipment and parts**

Not applicable.

### **1.B. ASSOCIATED REQUIREMENTS**

None.

### **1.C. REASON**

During a test flight with an AHD test helicopter, an inadvertent power loss followed by a rotor speed decrease occurred while the engine training mode was checked. Even after the training mode had been deactivated (engine switch was set from position "IDLE" to position "FLIGHT", TRAIN SEL switch was set from position "ARM" to position "OFF") the rotor speed did not increase as expected due to the high power demand.

As it cannot yet be ruled out that this behavior might also occur in serial helicopters, this Alert Service Bulletin limits the use of the training mode.

The lowest rotor speed limit that requires a manual deactivation of the training modes is increased from 92% to 95%. In addition to this, the maximum take-off weight for the CAT A training that is determined i.a.w. the instructions given in the flight manual is reduced by 100 kg.

The engine manufacturer is currently devoting maximum priority to finding the cause of the problem and to providing a solution if necessary.

### **1.D. DESCRIPTION**

Observe the restrictions regarding "before modification TU 146 or TU147" specified in the Flight Manual FMS 9.1-4 (EC135 T2) and FMS 9.1-8 (EC135 T2+).

### **1.E. COMPLIANCE**

#### **1.E.1. Compliance at H/C manufacturer level**

Helicopters/installed equipment and parts:

Not affected.

Non-installed equipment and parts:

Not affected.

**1.E.2. Compliance in service**

Helicopters/installed equipment and parts:

Observe the restrictions regarding "before modification TU 146 or TU147" specified in the Flight Manual FMS 9.1-4 (EC135 T2) and FMS 9.1-8 (EC135 T2+).

Non-installed equipment and parts:

Not affected.

**1.F. APPROVAL**

Approval of this document:

The technical content of this document is approved under the authority of DOA No. EASA.21J.700.

**1.G. ESTIMATED MAN-HOURS**

Not applicable.

**1.H. WEIGHT AND BALANCE**

No effect on weight and balance.

**1.I. POWER CONSUMPTION**

No effect.

**1.J. SOFTWARE UPGRADES/UPDATES**

Not affected.

**1.K. REFERENCES**

None.

**1.L. OTHER AFFECTED PUBLICATIONS**

EC135 T2: FMS 9.1-4

EC135 T2+: FMS 9.1-8

**1.M. INTERCHANGEABILITY OR MIXABILITY OF PARTS**

Interchangeability:

Not applicable.

Mixability:

Not applicable.

**2. MATERIAL INFORMATION****2.A. MATERIAL: PRICE – AVAILABILITY – PROCUREMENT**

Not applicable.

**2.B. INFORMATION CONCERNING INDUSTRIAL SUPPORT**

Not applicable.

**2.C. MATERIAL REQUIRED PER HELICOPTER/COMPONENT**

Not applicable.

**2.D. MATERIAL TO BE RETURNED**

Not applicable.

### **3. ACCOMPLISHMENT INSTRUCTIONS**

#### **3.A. GENERAL**

Not applicable.

#### **3.B. WORK STEPS**

Not applicable.

#### **3.C. IDENTIFICATION**

Compliance with this document:

Confirm accomplishment of this Alert Service Bulletin by an entry in the historical record of the helicopter.

#### **3.D. OPERATING- AND MAINTENANCE INSTRUCTIONS**

Not applicable.

### **4. APPENDIX**

Not applicable.