EASA Safety Information Bulletin

SIB No.: **2013-19**
Issued: **14 November 2013**

Subject: **Non-stabilized Approach followed by Runway Overrun at Lyon "Saint Exupéry" Airport**

Ref. Publications: Airbus Service Information Letter (SIL) 22-039 Revision 04, dated 04 October 2011.
Airbus Service Bulletin (SB) A320-22-1089 Revision 10, dated 05 November 2004.
Airbus SB A320-22-1090 Revision 11, dated 20 July 2004.
Airbus SB A320-22-1103 Revision 04, dated 13 March 2004.
Airbus SB A320-22-1116 Revision 04, dated 29 March 2004.
Airbus Letter to Fleet Managers, Flight Safety Officers and Flight Operations Managers, Ref. ME 1333744, dated 31 July 2013.

Applicability: Airbus A319 aeroplanes with CFM56 or IAE V2500 engines, A320 aeroplanes with CFM56 engines, and A321 aeroplanes with CFM56 or IAE V2500 engines.

Description: Following an instrument landing system (ILS) approach, during night, in rainy condition, an A321 aeroplane experienced a runway overrun.

Investigation revealed that the approach was not stabilized with an overspeed of 19 knots (kts) over the runway threshold, followed by a long flare (18 seconds) with touchdown far beyond the touchdown zone. The aeroplane exited the runway at 75 kts and came to rest around 300 meters beyond the end of the runway.

During the final approach, at 150 feet Radio Altimeter (RA) altitude, the corrected airspeed of the aeroplane was 165 kts (24 kts overspeed). Auto thrust (ATHR) in Speed/Mach mode commanded an undue N1 increase up to 70%.

At this stage of the investigations, it is identified that the main contributor to this runway overrun was a non-stabilized approach not followed by a go-around. Auto Thrust misbehaviour in case of large overspeed led to an unexpected thrust increase, which is considered as a contributor to the long flare.

This is information only. Recommendations are not mandatory.

This Auto Thrust characteristic, reported as “Spurious thrust increase during approach”, was initially found in 1996 and a recommended fix was developed and introduced in Flight Guidance (FG) Second Generation (2G) standard (std) “C8/I8” in 2001.

The number of affected aeroplanes is estimated at 385 when Legacy Flight Management Guidance Computer (FMGC) P/N B398xxxxxx or P/N B546xxxxxx are fitted. Some operators have chosen not to implement the optional upgrade that improves the Auto Thrust behaviour. The FG 2G std “C8/I8” is available through Airbus (optional) SB A320-22-1089, SB A320-22-1090, SB A320-22-1103 and SB A320-22-1116.

Airbus has recently put in place an incentive programme (see Airbus Letter Ref. ME 1333744 dated 31 July 2013) to replace the FMGC Legacy by the FMGC equipped with FMS2 and FG, providing ROW/ROPS (Runway Overrun Warning/ Runway Overrun Protection System) and AP/TCAS (Autopilot/Traffic Collision Avoidance System) capabilities. Information is also available through Airbus SIL 22-039.

It has been determined that the ROPS function, which is also part of the optional modification specified above, would have triggered a «RUNWAY TOO SHORT» aural alert before touchdown.

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 EU 748/2012, Part 21.A.3B.

Recommendation(s): Flight crews should follow the Aircraft Flight Manual procedures during normal and abnormal operation which take into account conditions which could impact landings.

Flight crews are reminded that a go-around decision is the safer solution to a non-stabilized approach, and that landing could be more difficult with overspeed, contaminated runway, and under tail wind conditions.

Operators are recommended to upgrade the Legacy FMGC FG 2G B398/B546, known as FMS1 standard, to the standard FMGC FG 2G C8/I8, or a later improved FMGC standard, known as FMS2 standard that avoids the identified Auto Thrust misbehaviour.

Contact(s): For further information contact the Safety Information Section, Executive Directorate, EASA. E-mail: ADs@easa.europa.eu.

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