



EASA Safety Information Bulletin

SIB No.: 2014-17
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- Subject:** **Aeroplane Mode Awareness During Final Approach**
- Ref. Publication:** Bureau d'Enquêtes et d'Analyses (BEA) [Serious Incident Report](#) "Deviation below manoeuvring airspeed on final, go-around, triggering of Alpha Floor protection" dated December 2013.
- [EASA SIB 2010-33 - Flight Deck Automation Policy - Mode Awareness and Energy State Management](#)
- Performance-based operations Aviation Rulemaking Committee (PARC) Commercial Aviation Safety Team (CAST) report [Operational use of flight path management systems](#)
- Applicability:** NAAs, operators, training organisations.
- Description:** On 3 April 2012, an Airbus A320-214 aeroplane (registration F-HEPE) performing an RNAV VISUAL approach for runway 26 at Tel Aviv Ben Gurion Airport experienced a low airspeed/energy condition. The crew indicated having heard the "SPEED, SPEED, SPEED" aural warning during the base turn. The pilot flying decided to go-around and placed the thrust levers in the Take-Off/Go-Around (TOGA) detent. Two seconds later, the ALPHA FLOOR flight mode engaged, indicating the activation of the high angle of attack protection, followed by the TOGA LOCK mode. After having disconnected and re-engaged the Auto-Thrust (A/THR), the crew carried out a second approach and landed uneventfully. Investigation revealed that, at the moment of the initial low speed condition, the aircraft was flying in OPEN DESCENT mode.
- Five days later, a similar event occurred on the same approach with another Airbus A320 aeroplane operated by the same airline. During this second event, the crew reacted as soon as the "SPEED, SPEED, SPEED" aural warning sounded by appropriately adjusting thrust, and continued the approach to a landing.

This is information only. Recommendations are not mandatory.

Following analysis of these events, the BEA issued, among others, the following safety recommendation:

EASA, in partnership with national civil aviation authorities, ensure that training and recurrent training programmes include instruction on the risks associated with the use of OPEN DESCENT mode on approach. [Recommendation FRAN-2013-86]

Recommendation(s): Based on the above mentioned events and the related BEA safety recommendation, EASA recommends that operators and training organisations emphasise, during initial and recurrent pilot training, the risks associated with flying final approaches in automated flight modes where the management of the aeroplane energy is partially controlled by the automation and partially affected by the pilot's real-time input (either through the flight controls or through thrust/power control).

Different aeroplane types use slightly different flight modes, speed/energy protections or mode reversion logics. Operators and training organisations are therefore encouraged to:

- a. Enhance pilots' understanding of automated flight modes, with particular emphasis on:
 - vertical modes commanding the thrust to idle;
 - speed/energy protections;
 - reversions - or automated mode changes - that may affect the aeroplane's energy level;
 - characteristics of the particular airplane type's modes that have led to pilot error or confusion in operational experience.
- b. Strictly follow the design approval holder's recommendations as stated in the relevant operational documentation (Aircraft Flight Manual, Checklists, etc.) when emphasising the use of the correct vertical and/or A/THR modes in critical phases of flight.
- c. Monitor effectiveness of training through appropriate Safety Management Processes.

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