

Applicability: RETRE, TRIE, TRE, SFE, TRI, SFI

Effective: Immediate

PILOT DISTRACTION - AUTOMATION STATUS

1 Introduction

1.1 Two serious incidents involving stick shake/stall warnings have occurred in the UK within the past eighteen months during automatic approaches. Though the events had different root causes, in both cases the aircraft reached a very low airspeed at a critical stage of flight. In both incidents, the crew incorrectly assumed that Autothrust was engaged in speed mode; this was not the case and the thrust levers were at idle.

2 Background

2.1 One of the events started by a demanding ILS intercept, during which the automatics were disconnected and not fully restored. The second started with an Autothrust disconnection that was not noticed by the crew. On both occasions a manual go-around was flown. The handling pilots experienced difficulty in flying the correct attitude since the autopilots had trimmed nose up to counter the decaying airspeed. Increased thrust compounded the problem and one aircraft reached 28 degrees nose up.

2.2 In one case handling difficulties were compounded by a failure to stow the speed brakes. The aircraft type in question does not have an auto-stow function. During the other incident, the crew retracted the flaps during stall recovery, and this could have resulted in a loss of stall margin.

2.3 On both occasions, the crew were distracted.

3 Recommendations

3.1 Instructors and examiners should be aware of the following points arising from the incidents:

- Distraction - Pilots should be aware of the dangers of automation dependence. Any change to the status of the aircraft automation systems should be verbalised and awareness of the whole crew confirmed, particularly at busy times.
- Pilot actions - TREs and TRIs should consider raising the topic during recurrent training. This would emphasise type-specific problems that might arise from mishandling/recovery in similar situations. This can range from basic aerodynamics to the best configurations for recovery. Configuration changes and speedbrake position could be covered. The crew should be reminded of autopilot functionality.
- Training – Scenarios involving, for example, subtle Autothrust failure on automatic approaches could be considered for inclusion within crew simulator checks.
- Discipline - TREs and TRIs must continue to emphasise a disciplined approach to the monitoring of Flight Mode Annunciator (FMA) indications. These must be constantly checked during critical phases of flight, especially following any vertical, lateral or speed change – whether selected or not.

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3.2 Pilots tend to cope well with manual flying, when levels of concentration increase. However, the comfort factor afforded by the use of automatics can often lead to complacency. Previously, pilots have rested their hand on the thrust levers to confirm 'wake-up' after deceleration but some fly-by-wire types have made this practice redundant. Accordingly, it is more important than ever to maintain awareness of FMA indications throughout all stages of flight.

4 Queries

4.1 Any queries as a result of this Flight Crew Training Notice should be addressed to Manager Flight Crew Standards at the following e-mail address: trainingstandards@caa.co.uk.

Captain David McCorquodale
Manager Flight Crew Standards

26 October 2009

Source Reference: Air Accidents Investigation Branch [Report 3/2009](#).

Publications affected: None.

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