



EASA Safety Information Bulletin

SIB No.: 2009-10R1

Issued: 05 July 2011

Subject: **Monitoring of Take-Off Slats/Flaps Settings during Departure**

Applicability: All aeroplanes fitted with flaps or slats used for take-off, and which are subject to operations in accordance with a Flight Crew Operating Manual (FCOM), or an equivalent document.

Ref. Publications: Republic of Indonesia National Transportation Safety Committee Aircraft Accident Report KNKT/05.24/09.01.38; and Spanish Ministry of Transport, Commission for the Investigation of Civil Aviation Accidents and Incidents, Safety Recommendation REC 01/09 dated 25 February 2009.

Description: This Safety Information Bulletin (SIB) was prompted by continuing reports of incidents and accidents due to flight crews failing to select required flap and slat settings prior to take-off.

Improper take-off configuration can have catastrophic consequences. The Take-Off Configuration Warning System is intended to give the flight crew warning of any potentially dangerous configuration before take-off. From the number of reported accidents and incidents where the system has failed to function or flight crews failed to select the correct configuration, it can be deduced that improved procedures would enhance safety.

Recent accidents involving the McDonnell Douglas DC-9-80 (MD-80) and Boeing 737 families of aeroplanes have been attributed to this situation.

The reasons why, on rare occasions, flight crews fail to select the correct configuration are complex and due to many factors, such as time pressures, stress, fatigue, mental saturation, distractions, non user friendly checklists, etc.

Prompted by operators' comments, this SIB has been revised to remove recommendations regarding the monitoring of slats/flaps settings by ground crew.

Recommendations: EASA recommends the following:**1. Operations Procedures – Take-Off Flap/Slat Selection**

From a human factors standpoint, the slats/flaps selection for take-off should be made during times of lower workload and least distraction.

It is therefore recommended that operators review and amend their operations manual procedures, as applicable, so that take-off slats/flaps selections are made before the aeroplane taxis away from the ramp, provided that:

- the applicable FCOM (or equivalent document) permits this procedure; and
- this does not conflict with prevailing conditions and associated procedures, e.g. application of de-icing fluid, taxiing in winter conditions, avoidance of foreign object damage, encountered obstacles, etc..

Type approval holders should review their FCOM (or equivalent document, as applicable) to determine whether take-off slats/flaps selections can be made before the aeroplane taxis away from the ramp, and make amendments, if appropriate.

It should be remembered that introduction of changes to these procedures will likely require approval by the competent authority and may also introduce the need for additional flight crew training.

2. Monitoring of Take-Off Slats/Flaps Checklist Effectiveness

Operators are encouraged to check the effectiveness of Take-off slats/flaps check list items by examining available in-service recorded data, and by monitoring the instances that they are not set at the expected time.

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