



EASA Safety Information Bulletin

SIB No.: 2014-20
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Subject: **Aeroplane Operations in Crosswind Conditions**

Ref. Publications: International Civil Aviation Organisation (ICAO) Annex 3 – Meteorological Service for International Air Navigation.

Annex III (EU-OPS) to Commission Regulation (EC) No [859/2008](#) of 20 August 2008.

Annex III (Part-ORO) to Commission Regulation (EU) No [965/2012](#) of 5 October 2012.

EASA - Certification Specifications and Acceptable Means of Compliance for Large Aeroplanes, [CS-25](#).

Research project EASA.2011/08
[NGW – Near-Ground Wind Gust Detection](#).

Bundesstelle für Flugunfalluntersuchung / German Federal Bureau of Aircraft Accidents Investigation (BFU) Investigation Report [5X003-0/08 dated March 2010](#).

Applicability: Aeroplane manufacturers, aeroplane operators, flight crews, approved training organisations, competent authorities.

Description: Many pilots have encountered situations in which the crosswind conditions at an aerodrome were close to the limits contained in the applicable Operations Manual (OM).

A survey of 81 pilots employed by 5 Commercial Air Transport (CAT) operators was conducted by the German Federal Bureau of Aircraft Accidents Investigation (BFU) in the context of a serious incident investigation related to crosswind ([BFU Investigation Report 5X003-0/08](#) of March 2010). The survey results reveal that a significant percentage of pilots does not have a clear understanding of how the “Aircraft Flight Manual (AFM) maximum demonstrated crosswind” is derived, and that sometimes no clear procedures and limitations concerning its use are available.

This is information only. Recommendations are not mandatory.

Furthermore, training and experience play a significant role in determining a pilot's ability to cope with challenging crosswind conditions.

Similar results were found through a study on crosswind ("[NGW – Near-Ground Wind Gust Detection](#)") that was commissioned by EASA and carried out by the National Aerospace Laboratory of the Netherlands (NLR). Additionally, the study showed that crosswind or tailwind component was a causal factor in a significant number of occurrences investigated since 1990 and involving CS-25 certified aeroplanes operated in CAT. These occurrences typically resulted in wingtip strikes, tail strikes, hard landings and runway excursions. The wind in these occurrences was frequently accompanied by gusty conditions.

The analysis of existing practices and issues regarding near-ground wind and associated gust information for pilots, conducted by NLR, prompted some considerations, which can be found in the NLR report.

Recommendations: Based on the above considerations, the overall objective of this SIB is to raise awareness on the risks associated with operations in strong and/or gusty crosswind conditions, with the purpose of adding emphasis to the relevant portions of pilot training and providing flight crews with unambiguous information to support their decision making processes.

EASA therefore encourages manufacturers, operators and approved training organisations to take the following into consideration when developing or revising an AFM, a Flight Crew Operating or Training Manual (FCOM/FCTM), operational procedures and limitations, and initial and recurrent training programmes:

- When publishing demonstrated crosswind values, manufacturers should specify if the gust factor is included or not;
- Operators and training organisations should consider publishing operational crosswind limitations which take into account their operational experience and the operating environment (e.g. runway width and state, prevailing weather conditions, etc.). These limits should be based on the AFM maximum demonstrated crosswind value, when more limiting values are not published in the limitation section of the AFM. Operators should also carefully consider including the gust factor in the operating limitations, following the manufacturer's recommendations, if any;
- Operators and training organisations are encouraged to emphasize, in their initial and recurrent training programmes, crosswind take-off and landing techniques relevant to the specific type as published in the AFM/FCOM/FCTM, taking into account applicable operational limitations. Full Flight Simulator (FFS) scenarios should make use of realistic crosswind and gust conditions.

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The effects of the implementation of operating procedures and training programmes should be closely monitored through the management systems, and training programmes should be tailored based on the operational data collected.

Competent authorities are encouraged to take the content of this SIB into consideration during initial certification and continuous oversight of operators and approved training organisations.

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