

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
RENTON, WASHINGTON 98057-3356

In the matter of the petition of

Cessna Aircraft Company

for a partial exemption from § 25.809(a)
of Title 14, Code of Federal Regulations

Regulatory Docket No. FAA-2015-0157

PARTIAL GRANT OF EXEMPTION

By letter dated January 21, 2015, Mr. Brian Richardet, Airworthiness Manager, Cessna Aircraft Company, One Cessna Boulevard, Wichita, Kansas, 67277-7704, petitioned the Federal Aviation Administration (FAA) for a partial exemption from the requirements of § 25.809(a) of Title 14, Code of Federal Regulations (14 CFR). This partial exemption, if granted, would permit relief from the requirement for a means to permit viewing of the likely areas of evacuee ground contact prior to opening the overwing exits on Cessna Model 680A airplanes.

The petitioner requests partial relief from the following regulation:

Section 25.809(a) at Amendment 25-116 - Each emergency exit, including each flightcrew emergency exit, must be a moveable door or hatch in the external walls of the fuselage, allowing an unobstructed opening to the outside. In addition, each emergency exit must have means to permit viewing of the conditions outside the exit when the exit is closed. The viewing means may be on or adjacent to the exit provided no obstructions exist between the exit and the viewing means. Means must also be provided to permit viewing of the likely areas of evacuee ground contact. The likely areas of evacuee ground contact must be viewable during all lighting conditions with the landing gear extended as well as in all conditions of landing gear collapse.

The petitioner supports its request with the following information:

This section quotes the relevant information from the petitioner's request, with minor edits for clarity. The complete petition is available at the Department of Transportation's Federal Docket Management System, on the Internet at <http://regulations.gov>, in Docket No. FAA-2015-0157.

Background

The Cessna Model 680A is an executive jet with a maximum of nine passengers and two crew. The overwing exit is a Type III exit. It is located on the right hand side of the aircraft in the lavatory. The overwing exit has a window that provides a means to permit viewing of the conditions outside the exit when the exit is closed. This allows for viewing of the conditions outside the exit when the exit is closed. However, from the location of the overwing exit it is not possible to view the ground contact.

Extent of Relief Sought

Partial relief is requested for 14 CFR 25.809(a). Relief is requested from the requirement for a means to permit viewing of the likely areas of evacuee ground contact prior to opening the overwing exit. The nature of this petition for partial exemption is similar to the previously granted Exemption 10756 for the Learjet Model LJ200 and Exemption 10757 for the Embraer Model EMB-550.

Public Interest

Cessna Aircraft Company competes in the global market. This aircraft is a needed expansion to the Cessna line of executive jets to compete in this market. The production of this aircraft will provide much needed jobs in today's environment. The added interface required to place the right hand exit in an area where ground contact would be viewed would require extra weight to interface with the main cabin environment. This would adversely affect the customers with added cost of operation.

Affect on Safety

In order to provide an exit that would view the ground contact, the exit would need to be moved forward in the cabin. This would mean that the exit would either be located on the very leading edge of the wing or off of the wing. For the best safety of the passengers, the current location of the exit in the lavatory is the best location. The current design allows the passengers visibility of the area outside the overwing exit to assess the immediate danger. Once out of the aircraft, on the wing, the passenger can view in all directions, assessing the best route to leave the wing. Thus, the granting of this exemption would not adversely affect safety of egress.

Federal Register publication

The FAA has determined that good cause exists for waiving the requirement for *Federal Register* publication for public comment because the request is identical in all material respects to previously granted exemptions; the exemption, if granted, would not set a precedent; and any delay in acting on this petition would be detrimental to Cessna Aircraft Company.

The FAA's analysis

The FAA has reviewed the information provided by Cessna Aircraft Company and has concluded that granting this exemption is in the public interest for the reasons discussed below. The FAA has determined no adverse impact on safety if an occupant cannot simultaneously see conditions immediately outside the exit door and the ground-contact point under all lighting and landing-gear conditions. The impact of the regulation, as codified, went beyond what was envisioned in the rulemaking process for the overwing exits on some airplanes.

Overwing Exits:

On many overwing exits, the location where the evacuee makes first contact on the ground is a considerable distance from the point from which they exit the passenger cabin. The distance the evacuee moves either forward or aft on the upper wing surface, and then down to the ground either by escape slide, or by jumping off the wing, or sliding down the leading or trailing edge of the wing, makes it impossible to see the ground contact point from inside the airplane because of the distance or the wing itself blocking the view. Some commenters to the notice of proposed rulemaking (Notice No. 96-9) made this point, and the FAA response was:

With respect to the potential for the exit to be somewhat remote from the point where the evacuees would contact the ground, the FAA agrees that this may be the case. The intent of the requirement is to enable a person to ascertain whether to open an exit, and whether it is safe to evacuate through the exit, based on an assessment of the outside conditions. To the extent that the means used for determination of the former does not also allow an assessment of the ground, the FAA agrees that an additional viewing means may be necessary, and that the additional means may be somewhat remote from the exit. We have therefore reworded the amendment to allow for the dual purpose of the viewing means, and to distinguish the required locations of the two.

Our intent in this rule was that it is not necessary for a person to be able to view the ground contact point while in position to open an overwing exit. The rule itself refers to the ground-contact view separately from the view of conditions outside the exit, but the intent of the rule was not clearly expressed in the rule language. The FAA worked with the European Aviation Safety Agency (EASA) to improve the rule language based on our experience applying this rule. EASA incorporated the improved language in their certification specifications (CS) at amendment 25/12, dated July 13, 2012. CS 25.809(a)(3) states:

For non-over-wing passenger emergency exits, a means must also be provided to permit viewing of the likely areas of evacuee ground contact when the exit is closed with the landing gears extended or in any condition of collapse. Furthermore, the likely areas of evacuee ground contact must be viewable with the exit closed during all ambient lighting conditions when all landing gears are extended.

The FAA is considering rulemaking to harmonize this requirement with EASA.

The proposed configuration provides a level of safety consistent with the intent of the rule. The window does allow for outside viewing to assess the outside conditions prior to opening the exit. The evacuee can then open the exit and step out onto the wing and move along the wing to assess the conditions where they would make first contact with the ground. At that point, if the conditions were not acceptable, evacuees would search for another location from which to exit off of the wing. To enforce literal compliance that is more stringent than our original intent for the rule would result in an unnecessary burden on the petitioner.

The FAA's decision

In consideration of the foregoing, I find that a partial grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. §§ 40113 and 44701 delegated to me by the Administrator, I grant Cessna Aircraft Company a partial exemption from 14 CFR 25.809(a). The exemption is granted to the extent necessary to allow Cessna Aircraft Company to partially comply with the outside-viewing requirements for the overwing exits. Specifically, the partial exemption allows viewing the first point of contact with the ground after the exit has been opened and the evacuee is on the upper surface of the wing on Cessna Aircraft Company Model 680A airplanes. Cessna Aircraft Company must demonstrate compliance with all other requirements of 14 CFR 25.809(a) at Amendment 25-116 for this airplane.

Issued in Renton, Washington, on April 14, 2015.

/s/

Michael Kaszycki
Acting Manager, Transport Airplane Directorate
Aircraft Certification Service