

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

In the matter of the petition of

**Dassault Aviation**

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

**Regulatory Docket No. FAA-2014-0887**

**GRANT OF EXEMPTION**

By undated letter submitted to the Department of Transportation's Federal Docket Management System (at Regulations.gov) on October 24, 2014, Mr. Matthieu Amberg, Falcon 5X Program Certification Engineer, Dassault Aviation, 78, quai Marcel Dassault, Cedex 300, 92552 Saint-Cloud Cedex, France, petitioned the Federal Aviation Administration (FAA) for an exemption from the requirements of § 25.809(a) of Title 14, Code of Federal Regulations (14 CFR). This exemption, if granted, would permit relief from the requirement to provide a means of viewing the likely areas of evacuee ground contact prior to opening the door for the Type III overwing emergency exit on Falcon 5X airplanes.

**The petitioner requests relief from the following regulation:**

**Section 25.809(a), at Amendment 25-116**, requires, in pertinent part, that each emergency exit be provided with a means to permit viewing of the likely areas of evacuee ground contact prior to opening the exit.

**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-2014-0887.

## **Extent of Relief and Reason for Seeking Relief**

For the Falcon 5X aircraft type III overwing emergency exit (RH side), Dassault Aviation seeks a relief from part of § 25.809(a), requiring the viewing of the likely areas of evacuee ground contact prior to opening the door.

For this exit, the outside evacuation path follows a marked route on the wing box, from the overwing type III emergency exit to the leading edge and down to the ground, without requiring an assist means (thanks to the low height of the wing leading edge).

Considering the outside viewing from the overwing exit window as well as from the adjacent window, the likely point of contact with the ground is masked by the wing box. A relief from the 14 CFR § 25.809(a) is necessary since the literal compliance to this requirement is not practical for overwing emergency exit configurations.

In addition, Dassault Aviation understands that the 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. And that the FAA is considering rulemaking to harmonize this requirement with EASA requirement CS 25.809(a)(3), at Amendment 25/12, which limits the ground contact point visibility requirement to non-overwing passenger emergency exits only.

*CS 25 Amdt. 12 - § 25.809(a)(3): For non-overwing 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.*

## **Reasons why granting this request would be in the public interest**

Whereas Dassault Aviation is not an American aircraft manufacturer, its completion center, Dassault Falcon Jet (DFJ) is a large American facility settled for a long time within the United States aircraft industry. In addition, as for all Dassault Aviation Falcon aircraft programs, the Falcon 5X program involves numerous US companies as aircraft systems and airframe and services suppliers. Falcon 5X business will increase the already established Falcon business which represents thousands of jobs over the United States. Denial of this petition would negatively impact the ability of the Falcon 5X to compete with other airplanes in the executive market, that have already been granted with exactly the same exemption. This will adversely impact the economy and employment of French and US companies, which would be against the public interest. Not granting this petition would force a major and unforeseen design and manufacturing effort necessary for the modification of the exit configuration. Such effort would not lead to a level of safety enhancement and would lead to delays in the business activity of the US citizens' Falcon customers as well as in the business between Dassault Aviation and its numerous US partners involved in the Falcon 5X project.

Granting this exemption would be in the interest of the public as the level of safety provided by the 5X design would be consistent with the intent of the rule.

### **Reasons why granting the exemption would not adversely affect safety**

Since Amendment 25-116, the intention of § 25.809(a), requesting the outside viewing means, is to enable an evacuee to ascertain whether to open an exit and whether it would be safe to evacuate through the exit, based on an assessment of the outside conditions.

On Falcon 5X, the wide field of vision through the emergency exit window provides excellent situation awareness for occupants preparing to open the overwing emergency exit. Any hazard that would pose immediate threat to the occupant if the door is opened would surely be detected by observing through this window. This viewing means enables a safe opening of the door consistently with the intention of the rule.

Any hazard at the point of contact with the ground would be detected by the evacuee from his safe station on the wing box. Granting an exemption would enable to propose the Falcon 5X with an overwing emergency exit configuration which meets the level of safety intended by the amendment 25-116 to regulation FAR § 25.809(a).

### **Additional Information**

Before opening the overwing type III emergency door, the evacuee will be able to observe the complete overwing surface, thanks to the window field of view and thanks to the outside emergency light required by § 25.812(g)(1)(ii).

During evacuation from the overwing exit, the evacuee located on the wing marked evacuation route, will be in a position to detect hazards that would threaten safety during the stepping down from the wing at the dedicated point. If the dedicated point of contact with the ground is not favorable, the evacuee will still be able to either:

- Stop the cabin evacuation from the RH type III overwing exit and evacuate from the LH type 1 exit, or
- Divert the evacuation path to slide from the wing to the ground further outboard. This being made possible by the outside emergency light which exceeds the level required by § 25.812(g)(1)(ii) and by the low height of the wing leading edge which remains below 6 feet from the ground farther from the marked sliding point, even in adverse collapsed landing gear configurations.

### **Operation Outside of the United States**

Falcon 5X aircraft will be operated all over the world by its US registered operators; therefore, Dassault Aviation requests to exercise the privileges of the exemption outside the United States.

## **Conclusion**

Considering on one hand the harmonization projected for FAA for CS 25.809(a) regulation with EASA regulation improved text, and on the other hand the exemptions already granted by FAA for similar overwing exit configuration, Dassault Aviation believes that granting this exemption petition will be in the public interest and will not adversely affect the safety of Falcon 5X passengers.

## **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 Dassault Aviation.

## **The FAA's analysis**

The FAA has determined that there is not an adverse impact on safety if an occupant cannot simultaneously see conditions immediately outside the exit door and the ground-contact point. The impact of the regulation, as codified, went beyond what was envisioned in the rulemaking process for the overwing exits on some airplanes.

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 wing upper surface, and then down to the ground either by escape slide, or by jumping off of 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 FAA considers the petitioner's proposal to be in the public interest for the following reason. The proposed configuration provides a level of safety consistent with the intent of the rule. The petition proposes that the window does allow for outside viewing to assess the outside conditions prior to opening the exit. Then the evacuee can open the exit and step out onto the wing and move along the wing to assess the conditions where they would make first contact to 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 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 Dassault Aviation an exemption from 14 CFR § 25.809(a) at Amendment 25-116. The exemption is granted to the extent necessary to allow Dassault Aviation to partially comply with outside viewing for the overwing Type III exit on the right side of the Falcon 5X airplanes.

Specifically, the 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 Dassault Aviation Falcon 5X airplanes. Dassault Aviation 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 January 30, 2015

/s/

Jeffrey E. Duven  
Manager, Transport Airplane Directorate  
Aircraft Certification Service