



AIRWORTHINESS DIRECTIVE

This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) with ADs.

Number:

CF-2020-10

Effective Date:

23 April 2020

ATA:

25

Type Certificate:

A4CE, A-212

Subject:

Cabin Equipment/Furnishings – Emergency Egress Difficulty

Applicability:

Textron Aviation Inc. (formerly Cessna Aircraft Company) model 206, U206, U206A, U206B, U206C, U206D, U206E, U206F, U206G, TU206A, TU206B, TU206C, TU206D, TU206E, TU206F, TU206G, 206H and T206H aeroplanes, all serial numbers.

Compliance:

As indicated below, unless already accomplished.

Background:

When Transport Canada (TC) validated the type design of the Textron Aviation Inc. models 206H and T206H, it was determined that the cargo doors located at the aft right-hand side of the cabin were not satisfactory to be considered an emergency exit. After performing testing and evaluation, TC concluded that the design of the doors did not satisfy the certification requirements that the method of opening the doors be simple and obvious and the doors be readily operated, even in darkness. During that validation, TC determined that emergency egress for aft seat occupants through the front left door of the aeroplane is satisfactory only if one or none of the two centre row seats is installed. Removing a centre row seat provides an escape path to the front exit for the occupants of the rear seats. For that reason, TC imposed occupancy and other limitations on the 206H and T206H models. These limitations are defined in Type Certificate Data Sheet A-212.

Earlier versions of the model 206 registered in Canada that feature the cargo doors have not been subject to occupancy limits, other limitations or corrective action requirements related to the cargo doors. These earlier versions of the model 206 have continued to operate in Canada without corrective or mitigating action despite the fact that the method of opening the cargo doors is essentially the same as the method for the 206H and T206H models. There is objective evidence that difficulty opening the cargo doors has contributed to fatalities during accidents in Canada involving the model 206.

TC considers that an unsafe condition exists if there is factual evidence that emergency equipment, life support systems or survivability equipment may not perform as intended. This AD introduces mitigating actions to improve the likelihood that all occupants of the model 206 that are equipped with cargo doors, will be able to successfully egress the aeroplane in an emergency situation.

The corrective actions in this AD impose new limitations on how the affected aeroplanes can be configured and loaded. TC emphasizes that, when performing mission planning and loading of the aircraft, it is important not only that the existing limitations and those introduced by the AD are complied with, but that best practices (such as avoiding aft centre of gravity (CG) near the aircraft limits when operating on floats) are also respected.

The Federal Aviation Administration (FAA) has approved a change to the design of model 206 that offers some risk mitigation from this hazard. FAA Supplemental Type Certificate (STC) SA1470GL installs a

door at the front on the right-hand side of the model 206 cabin. TC considers that this door offers a viable means of emergency egress for occupants of the front and centre-row seats in the event that the front left door is not functional or if access to the front left door is obstructed. Aeroplanes that have been modified in accordance with STC SA1470GL are exempted from the requirements of this AD subject to certain conditions as detailed in the Exemptions section of this AD.

Some 206 models in Canada are used for parachuting/skydiving operations. In this role, the cargo doors are removed. These aircraft are exempted from the requirements of this AD subject to certain conditions as detailed in the Exemptions section of this AD.

TC welcomes additional solutions that may be proposed in the future to mitigate risk from the hazard that is the target of this AD. TC will approve an AMOC when those solutions are adequately substantiated.

Corrective Actions:

Group 1 aeroplanes are models 206, U206, U206A, U206B, U206C, U206D, U206E, U206F, U206G, TU206A, TU206B, TU206C, TU206D, TU206E, TU206F, and TU206G that have not been modified by installing FAA STC SA1470GL.

Group 2 aeroplanes are models 206H and T206H that have not been modified by installing FAA STC SA1470GL.

Group 3 aeroplanes are models 206, U206, U206A, U206B, U206C, U206D, U206E, U206F, U206G, TU206A, TU206B, TU206C, TU206D, TU206E, TU206F, TU206G, 206H and T206H that have been modified by installing FAA STC SA1470GL.

Part I – Operating Limitations

1. This corrective action is applicable to Group 1 and most Group 3 aeroplanes. It is not applicable to Group 3 model 206H or T206H aeroplanes. From the effective date of this AD, operating the aeroplane with more than five (5) occupants is prohibited. One of the two centre (second row) seats (69.0 to 79.0 inches aft of datum) must be removed if any aft seat (98.0 inches aft of datum) is occupied. The carriage of passengers in an aft seat is prohibited when both centre (second row) seats are installed.

Note: The existing Canadian type design of Group 2 aeroplanes already includes a similar limitation.

2. This corrective action is applicable to Group 1, Group 2 and Group 3 aeroplanes. From the effective date of this AD, the space created by removing a centre (second row) seat (69.0 to 79.0 inches aft of datum) to provide an egress path for rear seat passenger(s), must not be used for cargo or baggage storage, but must remain clear to allow access to the front left-hand door for the rear seat passenger(s).
3. This corrective action is applicable to Group 1, Group 2 and Group 3 aeroplanes. From the effective date of this AD, it is prohibited to operate the aeroplane with any occupants in an aft seat (98.0 inches aft of datum) unless those occupants have, on the day of the flight, demonstrated the capability to independently (i.e. without guidance or assistance) open the cargo doors with flaps extended to the 20 degree setting or more. During this demonstration, it is acceptable to simulate that the flaps are deployed by physically restraining the movement of the forward door to a maximum opening of 8 centimeters. This will prevent the demonstration from damaging the door or the flaps.
4. This corrective action is applicable to Group 1, Group 2 and Group 3 aeroplanes. From the effective date of this AD, if there are occupants in the aft row of seats (98.0 inches aft of datum), the pre-flight safety briefing to passengers must emphasize that the preferred method of egress for aft row seat occupants is through the front left door. The briefing must explain that the cargo doors are to be used for emergency egress only if the front left door is not functional or if access to the front left door is obstructed.

Part II - Modifications

1. This corrective action is applicable to Group 1, Group 2 and Group 3 aeroplanes. No later than the effective date of this AD, append a copy of this AD to the Limitations section of the approved Aircraft Flight Manual that is carried in the aeroplane.
2. This corrective action is applicable to Group 1 and most Group 3 aeroplanes. It is not applicable to Group 3 model 206H or T206H aeroplanes. Within 6 months from the effective date of this AD, install Occupancy Placard part number (P/N) 1201215-4 (1 required) and Aft Seat Occupancy Placard P/N 1201215-5 (2 required) in accordance with Cessna Drawing Number 1201215-Cert. Provisions-Canada.

Note: Model 206H/T206H aeroplanes have these placards factory-installed as required by Transport

Canada Type Certificate Data Sheet A-212.

3. This corrective action is applicable to Group 1 and most Group 3 aeroplanes. It is not applicable to Group 3 model 206H or T206H aeroplanes. Within 18 months from the effective date of this AD, modify the cargo door installation by installing Textron Aviation (Cessna) Service Kit SK206-40 in accordance with Textron Aviation (Cessna) Service Bulletin SEB91-4, dated 22 March 1991.

Note: The cargo door design of Group 2 aeroplanes is comparable to the configuration of Group 1 aeroplanes after the preceding corrective action is accomplished.

Exemptions

Group 3 aeroplanes are exempt from all requirements of this AD provided the aft row seats are placarded, in a manner acceptable to the Minister of Transport, to prohibit occupancy.

Group 1, Group 2 and Group 3 aeroplanes that are operated with the cargo doors removed are exempt from all of the requirements of this AD. When aeroplanes that have been subject to this exemption are reconfigured for operations with cargo doors installed, the requirements of this AD become applicable.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 9 April 2020

Contact:

Ross McGowan, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.