



## TSB Recommendation A07-07

### Carry-on baggage

The Transportation Safety Board of Canada recommends that the Department of Transport require that passenger safety briefings include clear direction to leave all carry-on baggage behind during an evacuation.

Air transportation safety investigation report	<a href="#">A05H0002</a>
Date the recommendation was issued	12 December 2007
Date of the latest response	January 2023
Date of the latest assessment	March 2023
<a href="#">Rating</a> of the latest response	Satisfactory in Part
<a href="#">File status</a>	Active

### Summary of the occurrence

On 02 August 2005, the Air France Airbus A340-313 aircraft (registration F-GLZQ, serial number 0289) departed Paris, France, at 1153 Coordinated Universal Time (UTC) as Air France Flight 358 on a scheduled flight to Toronto, Ontario, with 297 passengers and 12 crew members on board. Before departure, the flight crew members obtained their arrival weather forecast, which included the possibility of thunderstorms. On final approach, they were advised that the crew of an aircraft landing ahead of them had reported poor braking action, and Air France Flight 358's aircraft weather radar was displaying heavy precipitation encroaching on the runway from the northwest. At about 200 feet above the runway threshold, while on the instrument landing system approach to Runway 24L with autopilot and autothrust disconnected, the aircraft deviated above the glideslope and the groundspeed began to increase. The aircraft crossed the runway threshold about 40 feet above the glideslope.

The aircraft was not able to stop on the runway and departed the far end at a groundspeed of about 80 knots. The aircraft stopped in a ravine at 2002 UTC (1602 eastern daylight time) and caught fire. All passengers and crew members were able to evacuate the aircraft before the fire reached the escape routes. A total of 2 crew members and 10 passengers were seriously injured during the crash and the ensuing evacuation.

The Board concluded its investigation and released report A05H0002 on 12 December 2007.

### **Rationale for the recommendation**

During the emergency evacuation of AFR358, many passengers took their carry-on baggage with them, despite specific instructions to the contrary being repeatedly shouted to them by the cabin attendants. In view of the requirement to egress rapidly, especially when an aircraft is on fire, this action presented a significant risk to their safety. The consequences could include impeding an orderly and timely evacuation, damaging an evacuation slide, and increasing the potential for injury.

Research into other accidents involving emergency evacuations revealed that the practice by passengers insisting on retrieving their carry-on baggage during an emergency evacuation was not unique to this accident, but was rather widespread. Research has also demonstrated that in a heightened state of fear, individuals have difficulty in understanding and adhering to instructions given. Furthermore, it was found that, in some aircraft, emergency evacuation cards for the passengers do not show any direction to leave carry-on baggage behind during an evacuation. Without prior instructions or guidelines concerning the dangers of attempting to take their carry-on baggage during an evacuation, passengers are likely to do so, increasing the potential for injury. The Board believes that any measure that would assist in raising the passengers' awareness about the hazards of attempting to take carry-on baggage with them during an emergency evacuation would serve to mitigate the risks. It is clear that informing passengers during emergency (safety) briefings of the prohibition of evacuating with carry-on items during an emergency would complement any existing measures designed to increase the efficiency and effectiveness of an emergency evacuation.

Therefore, the Board recommended that

the Department of Transport require that passenger safety briefings include clear direction to leave all carry-on baggage behind during an evacuation.

#### **TSB Recommendation A07-07**

### **Previous responses and assessments**

#### **February 2008: response from Transport Canada**

Transport Canada (TC) agrees with Recommendation A07-07 and will propose an amendment to the CARs to require that passenger safety briefings include direction to leave all carry-on baggage behind during an evacuation. The proposed amendment will be subject to the normal CARAC regulatory consultation process.

#### **August 2008: TSB assessment of the response (Satisfactory Intent)**

TC agrees with this recommendation, and intends to propose an amendment to the present regulations in line with the text of the recommendation. The proposed action will not have any effect in the short term, as any amendment to the CARs is a long process. However, this intended action, if implemented, will fully meet the intent of this recommendation. In the short

term, direct liaison on the part of the regulator with Canadian Airline Operators to recommend improvements in their safety briefing practices with respect to emergency evacuations would also achieve the aim of the recommendation.

Therefore, TC's response to Recommendation A07-07 is assessed as **Satisfactory Intent**.

#### **October 2008: response from Transport Canada**

A response to a DOI (A) letter dated 03 October 2008 suggesting that TC devise some short term action to mitigate the risks identified in Recommendation A07-07 was received on 10 October 2008. In its response TC committed to developing an Advisory Circular applicable to both General Aviation and Commercial Operators to address the concerns identified in Recommendation A07-07.

#### **November 2008: TSB assessment of the response (Satisfactory Intent)**

TC's stated intention to publish an Advisory Circular addressing the concerns identified in Recommendation A07-07 will complement its plan to propose a regulatory change via the normal CARAC regulatory consultation process. This short term action should serve to raise awareness amongst Canadian Airline Operators to the risks associated with not including clear direction to leave all carry-on baggage behind during an evacuation in their respective passenger safety briefings.

Therefore, TC's response to Recommendation A07-07 remains as **Satisfactory Intent**.

#### **February 2010: response from Transport Canada**

TC's response refers to its Advisory Circular No. 700-012 published 16 March 2009 as a means to address the concerns identified in TSB's Recommendation A07-07.

#### **July 2010: TSB assessment of the response (Satisfactory in Part)**

The publication of AC 700-012 entitled *Passenger Safety Briefings* will serve to raise awareness of the deficiency identified in Recommendation A07-07. The response does not update TSB with respect to progress of its rulemaking initiative as stated in its response dated 21 February 2008.

Despite the lack of information regarding the progress of TC's stated intention to initiate regulatory action, the Board believes that TC fully intends to pursue this course of action. The action taken will reduce but not substantially reduce or eliminate the safety deficiency.

Therefore, the assessment is changed to **Satisfactory in Part**.

#### **January 2011: response from Transport Canada**

TC's latest update took the form of answers to two questions that TSB had asked in July 2010 as a follow-up from TC's February 2010 update. Essentially, TSB requested the status of the TC's

CARAC Recommendation A07-07-related initiatives and, besides the publication of AC 700-012 *Passenger Safety Briefings* what, if any, alternatives to regulatory change might TC consider?

TC updated the status of its CARAC Recommendation A07-07-related initiatives by stating that its proposed regulatory amendments are part of the work plan but have yet to be addressed. Additionally, TC states that it is not considering any alternatives to regulatory change other than AC 700-012 *Passenger Safety Briefings*.

**March 2011: TSB assessment of the response (Satisfactory in Part)**

TC's response does not provide any new information with respect to the progress of TC's CARAC Recommendation A07-07-related initiatives.

Given the action taken to date and the lack of specificity regarding TC's future action, this will reduce but not substantially reduce or eliminate the safety deficiency.

Therefore, the assessment remains as **Satisfactory in Part**.

**May 2011: response from Transport Canada**

No change since January 2011 update.

**September 2011: response from Transport Canada**

No change.

**March 2012: TSB assessment of the response (Satisfactory in Part)**

TC's response provides no new information with respect to the progress of TC's CARAC Recommendation A07-07-related initiatives since its 21 January 2011 response. Specifically, in answer to the Board's question submitted to TC on 21 July 2010:

Can TC please provide the status of its previously mentioned CARAC initiatives to propose an amendment to the CARS to require that passenger safety briefings include direction to leave all carry-on baggage behind during an evacuation?

TC provided the following response:

Proposed amendments to the regulation are part of the work plan but have yet to be addressed.

It is disappointing that the latest update does not include any details about TC's work plan with respect to Recommendation A07-07-related initiatives. Additionally, a search of TC's Notice of Proposed Amendment webpage does not yield any passenger safety briefings-related activity associated with the deficiency identified in Recommendation A07-07.

TC's publication of AC 700-012 *Passenger Safety Briefings* remains the only substantive action taken to address the deficiency identified in Recommendation A07-07. The continued lack of detail with respect to TC's action plan to implement a regulatory requirement that passenger

safety briefings be enhanced in accordance with Recommendation A07-07 prevents a meaningful assessment. The action taken to date will reduce but not substantially reduce or eliminate the safety deficiency.

The response is considered **Satisfactory in Part**.

#### **December 2012: response from Transport Canada**

Advisory Circular (AC) No. 700-012 “Passenger Safety Briefings” was issued on 2009-03-16 to notify air operators of their responsibilities regarding passenger safety briefings. TC will measure the efficiency of the AC by reviewing actions taken by CARs 705 operators as they apply the AC and, as a result of this, will reassess to determine whether any further action is required by TCCA reassessment of this recommendation.

#### **March 2013: TSB assessment of the response (Satisfactory in Part)**

Once again TC’s response makes no mention of its rulemaking initiative as originally stated in its response dated 21 February 2008. Additionally, as late as 2011, TC stated that *“Proposed amendments to the regulation are part of the work plan but have yet to be addressed.”* Unfortunately, details of the work plan are again not provided and TC’s Notice of Proposed Amendment webpage does not contain any passenger safety briefings-related activity associated with the deficiency identified in Recommendation A07-07.

TC does advise of a plan to measure the efficiency of its *Advisory Circular* (AC) No. 700-012 “Passenger Safety Briefings” issued in 2009. The intent is to review actions taken by CARs 705 operators to implement this AC. Assuming all 705 operators are compliant with the passenger safety briefings-related CARs, such a review would presumably only reveal how many 705 operators are using the AC guidance to comply with the CARs. This information would be considered transient as there are no CARs that require that passenger safety briefings include clear direction to leave all carry-on baggage behind during an evacuation. Therefore, any operator that voluntarily included such direction could just as easily amend its passenger safety briefing to remove such direction and still be compliant with the applicable CARs.

The continued lack of detail with respect to TC’s action plan to implement a regulatory requirement that passenger safety briefings be enhanced in accordance with Recommendation A07-07 prevents a meaningful assessment. The action taken to date will reduce but not substantially reduce or eliminate the safety deficiency.

The response is considered **Satisfactory in Part**.

#### **November 2013: response from Transport Canada**

Transport Canada recently canvassed major Canadian carriers to gauge the extent to which direction to leave baggage behind in an emergency is communicated to passengers in a live or recorded audio briefing.

Transport Canada was encouraged by the results and maintains that the existing Advisory Circular (AC) 700-012: Passenger Safety Briefings provides the appropriate guidance.

TC does not plan any further regulatory or advisory material at this time, and no further updates will be provided.

#### **April 2014: TSB assessment of the response (Satisfactory in Part)**

TC's latest response indicates that it is persuaded that AC 700-012: Passenger Safety Briefings is having the desired effect. TC does not categorically state that all major carriers have implemented AC 700-012 to provide passengers with the instruction to leave baggage behind in the event of an emergency. Rather, its response indicates that an adequate number of carriers are providing this safety information to their passengers.

TC appears satisfied with these results and the ongoing willingness of operators to voluntarily include this safety information in their passenger briefings. Consequently, it plans no regulatory action that would require operators to provide this information to passengers as stated in Recommendation A07-07. The action taken to date will reduce but not substantially reduce or eliminate the safety deficiency.

The response is considered **Satisfactory in Part**.

#### **December 2021: response from Transport Canada**

Transport Canada (TC) agrees with the recommendation.

At the time of the publication of the recommendation in 2007, TC published Advisory Circular (AC) 700-012 – *Passenger Safety Briefing*<sup>1</sup> to remind air operators of their responsibilities regarding passenger safety briefings and to recommend that pre-take off, pre-landing and preparation for emergency landing passenger safety briefings include clear direction to leave all carry-on baggage behind during an evacuation.

In our last update in 2013, the Department canvassed major Canadian carriers to gauge the extent to which direction to leave baggage behind in an emergency is communicated to passengers in a live or recorded audio briefing. TC was encouraged by the results and maintained that the existing AC 700-012 provided the appropriate guidance and, as a result of this, TC did not plan any further regulatory or advisory material at that time.

In 2014, the work to address this recommendation had resulted in a Board assessment of “Satisfactory in Part” and was assigned a “Dormant” status after given that TC indicated that safety improvements had adequately reduced risk to an acceptable level, and that the Department did not plan to carry out further work on this issue.

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<sup>1</sup> Transport Canada (2009). Advisory Circular (AC) 700-012 – Passenger Safety Briefings. Available at: <https://tc.canada.ca/en/aviation/reference-centre/advisory-circulars/advisory-circular-ac-no-700-012>

Since then, in 2018, TC issued Civil Aviation Safety Advisory (CASA) 2018-04 – *Passengers Retrieving Carry-on Baggage during Evacuation*<sup>2</sup> recommending 604, 703, 704 and 705 operators to have a strategy in place to mitigate the risks involved with passengers removing carry-on baggage during an evacuation by using its safety management system to proactively identify, assess, and mitigate the risks to effective emergency evacuation as a result of an increase in the carry-on baggage brought into the passenger cabin.

In CASA 2018-04, TC committed to direct specific surveillance activities to evaluate the effectiveness of air operators' response to this document beginning to look for evidence of effective mitigations of this hazard approximately nine months after the publication of the CASA.

To this end, a Targeted Inspection campaign was conducted from January 2019 to January 2020. The campaign was focused on CASA 2018-04 and operators' (703, 704, 705) response to the document from which information was collected from 129 enterprises. Shifting priorities due to COVID-19 have delayed analysis of the national data and production of a final report. Any further actions are pending the results and recommendations of the report, which is expected to be completed by end of the fiscal year.

### **March 2022: TSB assessment of the response (Satisfactory in Part)**

In its latest response, Transport Canada (TC) indicated that it agrees with the recommendation.

In 2018, TC issued Civil Aviation Safety Alert (CASA) 2018-04, *Passengers retrieving carry-on baggage during evacuations*, recommending that air operators have a strategy in place to mitigate the risks associated with passengers taking their carry-on baggage with them during an evacuation. TC requested that CARs subparts 604 and 705 operators use their safety management system (SMS) to proactively identify, assess, and mitigate the risks posed to an effective emergency evacuation as a result of an increase in the amount of carry-on baggage brought into the passenger cabin. Additionally, TC raised the concern to CARs subparts 703 and 704 operators who are not yet required to have an SMS, and encouraged them to address the hazards and risks associated with passengers retrieving their carry-on baggage during an evacuation. CASA 2018-04 also served to notify air operators that 9 months after the publication of this CASA, TC planned specific surveillance activities to evaluate the effectiveness of air operators' response to this safety alert and planned to begin looking for evidence of effective mitigations of this safety hazard.

The Board is encouraged by these extra measures; however, it is important to note that Canadian air operators operating under subparts 703 and 704 of the *Canadian Aviation Regulations* (CARs) are not yet required to have an SMS. Thus, operators who do not have an

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<sup>2</sup> Transport Canada (2018). Civil Aviation Safety Alert (CASA) 2018-04 – Passengers retrieving carry-on baggage during evacuation. Available at: <https://tc.canada.ca/en/aviation/reference-centre/civil-aviation-safety-alerts/passengers-retrieving-carry-baggage-during-evacuations-civil-aviation-safety-alerts-casa-no-2018-04>

SMS might not have the tools to be able to identify and mitigate the risks associated with passengers taking their carry-on baggage during an evacuation. Furthermore, as underscored within the CASA, recent evacuations suggest that actions taken by operators in response to TC's recommendation to mitigate this safety hazard have not been effective. TC confirmed that targeted inspections of CARs subparts 703, 704, and 705 operators were completed in 2020 to evaluate the effectiveness of their response to the CASA; however, the analysis of the results is pending and TC anticipates that it will only be completed by the end of the 2021-2022 fiscal year.

As long as there is no specific regulatory requirement mandating that passenger safety briefings include clear direction to leave all carry-on baggage behind during an evacuation, the actions taken to date by TC will reduce but not substantially reduce or eliminate the risks associated with the safety deficiency identified in Recommendation A07-07.

Therefore, the response to Recommendation A07-07 is assessed as **Satisfactory in Part**.

## Latest response and assessment

### January 2023: response from Transport Canada

Transport Canada (TC) agrees with the recommendation.<sup>3</sup>

At the time of the publication of the recommendation in 2007, TC published Advisory Circular (AC) 700-012 – *Passenger Safety Briefings*<sup>4</sup> to remind air operators of their responsibilities regarding passenger safety briefings and to recommend that pre-take off, pre-landing and preparation for emergency landing passenger safety briefings include clear direction to leave all carry-on baggage behind during an evacuation.

In 2013, the Department canvassed major Canadian carriers to gauge the extent to which direction to leave baggage behind in an emergency is communicated to passengers in a live or recorded audio briefing. TC was encouraged by the results and maintained that the existing AC 700-012 provided the appropriate guidance. As a result of this, TC did not plan to develop any further regulations or advisory material at that time.

In 2014, the work to address this recommendation resulted in a Board assessment of “Satisfactory in Part” and was assigned a “Dormant” status given that TC indicated that safety improvements adequately reduced risk to an acceptable level, and that the Department did not plan to carry out further work on this issue.

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<sup>3</sup> All responses are those of the stakeholders to the TSB in written communications and are reproduced in full. The TSB corrects typographical errors in the material it reproduces without indication but uses brackets [ ] to show other changes or to show that part of the response was omitted because it was not pertinent.

<sup>4</sup> Transport Canada (2009). Advisory Circular (AC) 700-012 – Passenger Safety Briefings. Available at: <https://tc.canada.ca/en/aviation/reference-centre/advisory-circulars/advisory-circular-ac-no-700-012>



Since then, Transport Canada has taken further action to further reduce the risks associated with this issue. In 2018, TC issued Civil Aviation Safety Alert (CASA) 2018-04 – *Passengers Retrieving Carry-on Baggage during Evacuation*<sup>5</sup> recommending that [CARs subparts] 604, 703, 704 and 705 operators have a strategy in place to mitigate the risks associated with passengers removing carry-on baggage during an evacuation by using its safety management system to proactively identify, assess, and mitigate the risks to effective emergency evacuation as a result of an increase in the carry-on baggage brought into the passenger cabin.

In CASA 2018-04, TC committed to direct specific surveillance activities to evaluate the effectiveness of air operators' response to this document beginning to look for evidence of effective mitigations of this hazard approximately nine months after the publication of the CASA.

In our last update in December 2021 (RDIMS 18077688), we reported that a Targeted Inspection campaign was conducted from January 2019 to January 2020. The campaign was focused on CASA 2018-04 and operators' (703, 704, 705) response to the document and information was collected from 129 enterprises. Due to conflicting priorities, the completion of the final report on the Targeted Inspection campaign was further delayed and a draft is now expected to be completed by April 2023.

### **March 2023: TSB assessment of the response (Satisfactory in Part)**

In its latest response, Transport Canada (TC) indicated that it agrees with the recommendation.

As reported in the previous update in December 2021, TC confirmed a Targeted Inspection campaign was conducted from January 2019 to January 2020. The campaign was focused on *Canadian Aviation Regulations* operators' (subparts 703, 704, and 705) responses to Civil Aviation Safety Alert (CASA) 2018-04, *Passengers retrieving carry-on baggage during evacuations*, and information was collected from 129 enterprises. An analysis of the national data and the production of a final report were planned for the end of the 2021-2022 fiscal year. However, according to TC, due to conflicting priorities, the completion of the final report on the Targeted Inspection campaign is further delayed, and a draft report is now anticipated by April 2023.

The Board is encouraged by TC's planned actions to evaluate the effectiveness of air operators' responses to this CASA for the purpose of identifying effective mitigations of this safety hazard. However, the Board remains concerned by the ongoing delays to advance this initiative. Moreover, in the absence of a regulatory requirement mandating that passenger safety briefings include clear direction to leave all carry-on baggage behind during an evacuation, the actions

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<sup>5</sup> Transport Canada (2018). Civil Aviation Safety Alert (CASA) 2018-04 – Passengers retrieving carry-on baggage during evacuation. Available at: <https://tc.canada.ca/en/aviation/reference-centre/civil-aviation-safety-alerts/passengers-retrieving-carry-baggage-during-evacuations-civil-aviation-safety-alerts-casa-no-2018-04>

taken to date by TC will diminish but not substantially reduce or eliminate the risks associated with the safety deficiency identified in Recommendation A07-07.

Therefore, the Board considers the response to Recommendation A07-07 to be **Satisfactory in Part**.

### **File status**

The TSB will continue to monitor the progress of TC's actions to mitigate the risks associated with the safety deficiency identified in Recommendation A07-07, and it will reassess the deficiency on an annual basis or when otherwise warranted.

This deficiency file is **Active**.