



TSB Recommendation A19-05

Collecting activity data specific to the air-taxi sector

The Transportation Safety Board of Canada recommends that the Department of Transport require all commercial operators to collect and report hours flown and movement data for their aircraft by *Canadian Aviation Regulations* subpart and aircraft type, and that the Department of Transport publish those data.

Air transportation safety investigation report	A15H0001
Date the recommendation was issued	07 November 2019
Date of the latest response	December 2023
Date of the latest assessment	February 2024
Rating of the latest response	Satisfactory in Part
File status	Active

Summary of the occurrence

In May 2015, the Transportation Safety Board of Canada (TSB) launched an in-depth Safety Issues Investigation (SII) into the risks that persist in air taxi operations across Canada. This SII reviewed 15 years of data to identify safety issues in Air Taxi Operations in Canada that have not been sufficiently mitigated. This SII examined air taxi operations as a whole and considered safety issues that are germane to the entire air taxi industry and not just to one specific segment of the industry.

The Board concluded its SII and released report A15H0001 on 07 November 2019.

Rationale for the recommendation

A key indicator of aviation safety is the aircraft accident rate, which is calculated as the number of accidents per hours flown or per number of movements (a movement can be a takeoff or a landing). Performing a trend analysis of accident rates for different types of operators can detect emerging safety issues associated with specific operator types and activities. In addition, accident rate data makes it possible to compare accident risk for different operator types, in different countries or on different continents. For example, the U.S. Federal Aviation Administration (FAA) compiles scheduled and non-scheduled flight hours and departures

under Title 14 *Code of Federal Regulations* (CFR). Operators governed by Part 135 of Title 14 CFR include on-demand carriers, which are similar to Canadian air-taxi operators. The U.S. National Transportation Safety Board (NTSB) uses these activity data to compute accident rates and fatal accident rates across sectors.

Activity data (e.g., flight hours) broken out by operator type¹ is required to calculate the accident rates that enable trend analysis of specific operator types over time, or comparisons across operator types or geographical regions.

Until 2010, TC provided activity data broken out by operator type, and the TSB used these data to calculate and publish accident rates across operator types. In 2010, however, TC informed the TSB that it would no longer provide hours-flown activity data breakouts by operator type, because it had concerns regarding the accuracy of those data. The data were reported to TC by the commercial operators who were allowed to report all hours under the most restrictive subpart of the CARs, even if they conducted operations under more than one subpart.

Reporting all hours for all subparts under a single total conflates and confounds airline and commuter activity, as well as the activity of many smaller aviation operators that may carry out operations under multiple subparts of the CARs (commuter, air taxi, and/or aerial work) and report their activity as a single total. Furthermore, the movement data as presently reported by Statistics Canada² come from a survey that covers all aircraft movements at Canadian airports, with or without NAV CANADA air traffic control towers and flight service stations. Air-taxi operations are conducted at these locations, as well as in locations such as lakes, unprepared landing sites, remote locations, etc. where movements are not recorded by air traffic service providers.

Because hours-flown and movement data are currently not categorized by CARs subpart when collected by the government, the rate data calculated is for the commercial aviation sector as a whole; there is no differentiation between sectors (e.g., air-taxi operators versus airline operators) or between different types of aircraft (airplane, helicopter, floatplane). Therefore, the accident rate cannot be calculated for just the air-taxi sector.

Without hours-flown and movement data that are categorized by CARs subpart and aircraft type, it will be more difficult for sector stakeholders to assess risks and determine if mitigation strategies being carried out to improve safety are actually working.

¹ The operator types in the CARs are as follows: airline operations (Subpart 705), commuter operations (Subpart 704), air-taxi operations (Subpart 703), aerial work (Subpart 702), foreign air operations (Subpart 701), and private operators (Subpart 604).

² Statistics Canada, "Aircraft Movement Statistics," at <http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=2715> (last accessed on 07 October 2019).

Therefore, the Board recommended that

the Department of Transport require all commercial operators to collect and report hours flown and movement data for their aircraft by *Canadian Aviation Regulations* subpart and aircraft type, and that the Department of Transport publish those data.

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Previous responses and assessments

January 2020: response from Transport Canada

TC agrees with the recommendation.

TC agrees that more precise activity data will help stakeholders in the air-taxi sector to assess risk and evaluate, to an extent, which mitigating strategies to improve safety are having a greater impact.

TC also recognizes that collecting these data would require significant investment, from both the industry who would be required to provide the data, and for TC who would be required to collect and analyse it.

To this end, TC will consult with industry by the end of 2020. Work will also be undertaken by TC to evaluate what has already been done regarding collection and reporting of data, determine what data/information is missing and consider the requirements and best approaches to obtain the activity data described in the recommendation. The consultations would be followed by an internal summary of what we heard from the consultations, which would likely be shared by means of the TC Let's Talk Page. TC would be better positioned by summer/fall 2021 to determine whether or not a regulatory proposal would be appropriate.

March 2020: TSB assessment of the response (unable to assess)

In its response, Transport Canada (TC) indicated that it agrees with Recommendation A19-05.

After it consults with industry and evaluates what was previously in place to collect and report data, TC will determine the best approach to obtain the data required by Recommendation A19-05. By summer or fall 2021, TC expects to be able to determine if a regulatory proposal is appropriate.

The Board is encouraged that TC has a strategy moving forward with regards to addressing the safety deficiency identified in Recommendation A19-05. However, at this time, the Board is unable to determine if these actions will result in specific solutions to address the safety deficiency identified in Recommendation A19-05.

Therefore, the Board is **unable to assess** the response to Recommendation A19-05.

December 2020: response from Transport Canada

TC agrees in principle with the recommendation.

In its initial response to this recommendation in January 2020, TC committed to carry out an initial policy assessment to: evaluate what has already been done regarding collection and reporting of data, determine what data/information is missing and consider the best approach to obtain these data. We further committed to consult with industry by the end of 2020.

Since TC's initial response, we created a WG to conduct document reviews, meet with internal SMEs and explore current data collection options. Unfortunately, due to the global pandemic, work on this file in 2020 has been delayed. However, initial work is underway. A WG meeting was held in early October 2020 and a consultation paper is currently being developed that will be used to gather input from commercial operators in the air taxi industry in winter 2021.

As a next step, the WG will identify the requirements and best approaches to obtain activity data described in the recommendation by the end of fall 2021. Once the review and consultation are completed, TC will be in a position by fall 2021 to propose any regulatory and non-regulatory recommendations.

March 2021: TSB assessment of the response (Satisfactory Intent)

In its response, Transport Canada (TC) indicated that it agrees in principle with Recommendation A19-05.

TC continues to be committed to an initial policy assessment to evaluate what was previously in place to collect and report data, determine what data is missing and determine the best approach to obtain the data required.

TC has created an internal working group to conduct the review and explore data collection options. This group's work has been impacted by the current global pandemic; however, work is being done regarding plans for air-taxi sector consultations to take place in the winter of 2021. TC indicated that the working group will identify the requirements and best methods to gather the data by the end of fall 2021.

TC also indicated it will be in a position to propose any regulatory or non-regulatory approaches by the fall of 2021.

The Board is encouraged that TC has a more detailed strategy moving forward to address the collection of activity data specific to the air-taxi sector. These actions, when fully implemented, have the potential to substantially mitigate the risks associated with the safety deficiency identified in Recommendation A19-05.

Therefore, the response to Recommendation A19-05 is assessed as **Satisfactory Intent**.

December 2021: response from Transport Canada

Transport Canada (TC) agrees in principle with the recommendation.

Since the recommendation was issued in December 2019, TC created a working group to conduct document reviews, meet with internal Subject Matter Experts (SMEs), explore current data collection options, identify the requirements, and best approaches to obtain activity data described in the recommendation.

In our last update in December 2020, the Department committed to carry out Preliminary Impact and Consultation Assessment (PICA) and consult with the industry to evaluate what was previously in place to collect and report data, determine what data is missing and determine the best approach to obtain the data required.

While delayed by the COVID-19 pandemic, TC's Initial Policy Assessment is ongoing and seeks to actively address the collection and publication of activity data specific to Canadian commercial operators by aircraft type and subparts 702, 703, 704 and 705 of the *Canadian Aviation Regulations* (CARs), with the goal of obtaining data most relevant to the air-taxi sector. To date, TC has reviewed the existing processes through the Annual Airworthiness Information Report (AAIR) and the Continuing Airworthiness Web Information System (CAWIS) for collecting and reporting data on hours flown for all commercial operators.

The next steps in TC's Initial Policy Assessment are to:

- Continue reviewing existing processes for collecting movement data for all commercial operators by CARs subpart and aircraft type, including in remote areas without air traffic service providers;
- Explore other countries' approaches to collect and publish activity data and how they compare to systems in Canada; and
- Begin identifying and validating policy options (regulatory and non-regulatory) and considerations that will guide future decision-making processes.

TC aims to complete its Initial Policy Assessment by Winter 2021/Spring 2022, which will then inform development of a stakeholder consultation plan that may include a PICA.

TC may resume meetings and consultations with a working group to meet with SMEs, further explore current data collection options and identify the best methods to gather and publish the data following the completion of the Initial Policy Assessment.

March 2022: TSB assessment of the response (Satisfactory Intent)

In its response, Transport Canada (TC) indicated that it agrees in principle with Recommendation A19-05.

TC's working group, that was established prior to TC's response in December 2020, continues to conduct document reviews, meet with internal subject matter experts (SMEs), explore current

data collection options, and identify the requirements and best approaches to obtain activity data.

In its latest response, TC indicated that in its December 2020 response it had committed to carry out a Preliminary Issue and Consultation Assessment (PICA) as part of its plan; however, this is new information that was not included in its December 2020 response.

Although delayed by the ongoing COVID-19 pandemic, TC's initial policy assessment continues to seek a way to address the collection and publication of activity data specific to all subparts of the *Canadian Aviation Regulations* (CARs), with the focus of obtaining data most relevant to the air-taxi sector. TC has reviewed existing processes of the Annual Airworthiness Information Report and the Continuing Airworthiness Web Information System as a way of collecting and reporting data on hours flown for all commercial operators.

TC has indicated its next steps of its initial policy assessment are to:

- continue reviewing existing processes for collecting movement data;
- explore the approach of other countries for the collecting and publishing of activity data and to compare those systems; and
- begin identifying and validating regulatory and non-regulatory policy options.

TC intends to complete its initial policy assessment by winter 2021/spring 2022, which will then inform development of a stakeholder consultation plan. TC indicated that the consultation plan may also include a PICA as part of its industry consultations to determine the best approach to obtain the data required. TC also indicated that it may resume its working group meetings and consultations with SMEs to further explore current data collection options, and post-policy assessment.

The Board is encouraged that TC has an ongoing plan to address the collection and publication of activity data specific to Canadian commercial operators by aircraft type and subparts 702, 703, 704, and 705 of the CARs. These actions, when fully implemented, have the potential to substantially mitigate the risks associated with the safety deficiency identified in Recommendation A19-05.

Therefore, the response to Recommendation A19-05 is assessed as **Satisfactory Intent**.

January 2023: response from Transport Canada

Transport Canada (TC) agrees in principle with the recommendation and intends to continue identifying options (regulatory and non-regulatory) to collect and publish aviation activity data (aircraft hours flown and movement information) per Canadian Aviation Regulations (CARs) subpart and aircraft type.³

³ All responses are those of the stakeholders to the TSB in written communications and are reproduced in full. The TSB corrects typographical errors and accessibility issues in the material it reproduces without indication

In its last update in December 2021, the Department committed to:

- Begin identifying and validating policy options (regulatory and non-regulatory) and considerations that will guide future decision-making processes.
- Continue reviewing existing processes for collecting movement data for all commercial operators by CARs subpart and aircraft type, including in remote areas without air traffic service providers.
- Explore other countries' approaches to collect and publish activity data and how they compare to systems in Canada.

Since the previous update, TC conducted an Initial Policy Assessment that included an internal review of TSB recommendation A19-05 and TC's existing regulatory framework for collecting aviation activity data per CARs subpart and aircraft type.

Additionally, it explored guiding principles to inform future decision making and additional considerations that may affect the viability of each policy option including: the accuracy of the data, the benefits, and limitations of the data in improving aviation safety, potential for additional administrative burden, alignment with international practices, and potential support for TC and external programs and initiatives.

The initial policy assessment also included an initial review of voluntary and mandatory data collection frameworks in other jurisdictions including the United States and Australia. Through this review, TC determined that addressing A19-05 could present an opportunity for TC to align with international practices to analyze aviation activity data by operation and activity types to enable more targeted safety analysis.

In addition to the policy review, TC examined the potential for existing data to be used to provide better activity estimates broken down by CARs subpart. This included:

- *Accident Rates per Hours Flown*: TC developed and piloted a method of estimating accident rates per hours flown per CARs subpart using existing data sets (i.e., cross referencing Annual Airworthiness Information Report (AAIR) data with operating certificate information from other data sets). The method showed some promise as an interim measure and further information on this initiative will be shared with the TSB in due course.
- *Accident Rates per Aircraft Movements*: TC does not currently have an accurate means of estimating accident rates per aircraft movements. As described above, TC is considering regulatory and non-regulatory options for obtaining this information, following further consultations with industry.

TC intends to develop a consultation plan following further internal analysis to determine options to address A19-05.

but uses brackets [] to show other changes or to show that part of the response was omitted because it was not pertinent.

In Summer 2023, TC intends to continue discussions with internal subject matter experts and other government departments to identify the best methods and policy options (regulatory and non-regulatory) to gather and publish the aviation activity data per CARs subpart and aircraft type.

As options are finalized, TC intends to develop a consultation plan in Fall 2023, that could include the publication of a Preliminary Issue and Consultation Assessment.

It should be noted that a decision was recently taken to temporarily suspend the Annual Airworthiness Information Report (AAIR) data collection for the 2022 calendar year. Since this process is the source of hours flown data, TC will be unable to calculate accident rates for 2022 and will not be able to provide these data to the TSB. A briefing is being developed to communicate the rationale for this decision and discuss next steps with the TSB. TC is hopeful that through the work on this recommendation and other initiatives, a means of collecting and analyzing comprehensive activity data that is robust and sustainable will be identified.

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

In its response, Transport Canada (TC) indicated that it agrees in principle with Recommendation A19-05.

In its latest update, TC indicated that it had conducted an Initial Policy Assessment that included:

- an internal review of Recommendation A19-05 and its existing regulatory framework for collecting aviation activity data;
- exploring guiding principles to inform future decision making and additional considerations that may affect the viability of each policy option; and
- an initial review of data collection frameworks in other countries.

Furthermore, TC examined the potential for existing data to be used to provide better activity estimates.

Going forward, TC intends to continue discussions with internal subject matter experts and other government departments to identify the best methods and policy options. Following that, TC intends to develop a consultation plan in Fall 2023.

TC has indicated that it has temporarily suspended the Annual Airworthiness Information Report (AAIR) data collection for 2022. This is a very concerning development for the Board as the AAIR process is a critical data source for hours flown for all *Canadian Aviation Regulations* (CARs) subparts combined. This suspension is a significant setback in addressing Recommendation A19-05. Not only does it prevent the TSB from calculating an overall accident rate for 2022, it also moves farther away from the recommendation's intent, which is to collect and report on hours flown and movement data by CARs subparts.

The Board is deeply concerned regarding this situation and is apprehensive that the suspension may persist for an extended period. It is crucial that TC quickly find a solution to the issue and resume data collection for the AAIR.

Therefore, the Board considers the response to Recommendation A19-05 to be **Satisfactory in Part**.

Latest response and assessment

December 2023: response from Transport Canada

Transport Canada (TC) agrees in principle with Recommendation A19-05's intent to improve the Department, the Transportation Safety Board (TSB) and other aviation stakeholders' ability to identify and monitor safety trends overtime.

In its last update in December 2022, the Department committed to:

- Continue discussions with internal subject matter experts and other government departments to identify the best methods and policy options (regulatory and non-regulatory) to gather and publish the aviation activity data per CARs subpart and aircraft type.
- As options are finalized, develop a consultation plan in Fall 2023, that could include the publication of a Preliminary Issue and Consultation Assessment.
- Brief the TSB on TC's decision to temporarily suspend the Annual Airworthiness Information Report (AAIR) data collection for the 2022 calendar year.
- Continue work on TSB Recommendation A19-05 and other initiatives to identify a robust and sustainable means of collecting and analyzing comprehensive activity data.

Since the previous update, TC has briefed the TSB on the temporary suspension of the AAIR data collection for the 2022 calendar year and the AAIR modernization effort that followed to better facilitate future data acquisition and management.

In 2024, operators will be required to submit two years' worth of data as part of their AAIR submission. This will allow TC to continue to calculate accident rates for the 2022 and 2023 calendar years.

To continue to enhance the availability of safety information and support robust safety analysis, TC is committed to continuing to progress the department's work on safety information and data initiatives.

Following the modernization of the AAIR program in 2024, TC intends to conduct an internal review of the department's operational feasibility to potentially expand the data collected through the AAIR program. Afterwards, TC intends to continue developing regulatory options to address TSB Recommendation A19-05 in 2025–26 and conduct the associated consultations with industry as needed. Timelines for consultations with industry remain in development and are dependent on further analysis to determine options to address A19-05.

February 2024: TSB assessment of the response (Satisfactory in Part)

In its response, Transport Canada (TC) indicated that it agrees in principle with Recommendation A19-05.

In its latest update, TC indicated that it had temporarily suspended Annual Airworthiness Information Report (AAIR) data collection as planned for the 2022 calendar year to allow for modernization of the AAIR system. In 2024, air operators will be required to submit 2 years' worth of data to allow TC to calculate accident rates for 2022 and 2023.

In 2024, TC plans to internally review the operational feasibility of expanding the data collected through the AAIR program. Subsequently, regulatory options will be developed to address TSB Recommendation A19-05 in 2025–26, followed by consultations with the industry as required. Timelines for industry consultations are still under development and contingent on further analysis to determine options for addressing Recommendation A19-05.

The Board is encouraged that TC has an ongoing plan to address the collection and publication of activity data specific to *Canadian Aviation Regulations* subpart and aircraft type. However, until a regulatory path forward is identified, it remains unclear whether TC's actions will fully address the safety deficiency identified in Recommendation A19-05.

Therefore, the Board considers the response to Recommendation A19-05 to be **Satisfactory in Part**.

File status

The TSB will continue to monitor the progress of TC's actions to mitigate the risk associated with the safety deficiency identified in Recommendation A19-05, and it will reassess the response to the recommendation on an annual basis or when otherwise warranted.

This deficiency file is **Active**.