



TSB Recommendation A16-09

Instrument flight currency requirements

The Transportation Safety Board of Canada recommends that the Department of Transport establish instrument currency requirements that ensure instrument flying proficiency is maintained by instrument-rated pilots, who may operate in conditions requiring instrument proficiency.

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| Air transportation safety investigation report | A13H0001 |
| Date the recommendation was issued | 15 June 2016 |
| Date of the latest response | October 2022 |
| Date of the latest assessment | March 2023 |
| Rating of the latest response | Satisfactory Intent |
| File status | Active |

Summary of the occurrence

On 31 May 2013, at approximately 0011 Eastern Daylight Time, the Sikorsky S-76A helicopter (registration C-GIMY, serial number 760055), operated as Lifelight 8, departed at night from Runway 06 at the Moosonee Airport, Ontario, on a visual flight rules flight to the Attawapiskat Airport, Ontario, with 2 pilots and 2 paramedics on board. As the helicopter climbed through 300 feet above the ground toward its planned cruising altitude of 1000 feet above sea level, the pilot flying commenced a left-hand turn toward the Attawapiskat Airport, approximately 119 nautical miles to the northwest of the Moosonee Airport. Twenty-three seconds later, the helicopter impacted trees and then struck the ground in an area of dense bush and swampy terrain. The aircraft was destroyed by impact forces and the ensuing post-crash fire. The helicopter's satellite tracking system reported a takeoff message and then went inactive. The search-and-rescue satellite system did not detect a signal from the emergency locator transmitter (ELT). At approximately 0543, a search-and-rescue aircraft located the crash site approximately 1 nautical mile northeast of Runway 06, and deployed search-and-rescue technicians. However, there were no survivors.

The Board concluded its investigation and released report A13H0001 on 15 June 2016.

Rationale for the recommendation

As seen in this occurrence, 2 pilots lacking instrument flying proficiency departed for a night visual flight rules (VFR) flight in conditions that required the use of instrument flying skills because the cultural and/or ambient lighting needed to maintain visual reference to the surface was lacking. Although both pilots had met the instrument flight currency requirements in the *Canadian Aviation Regulations* (CARs), once the aircraft passed the end of the runway lights necessitating transition to flight by reference to instruments, an excessive bank angle and rate of descent developed, which were not recognized by the crew at an altitude that permitted recovery.

Under the current regulations, instrument-rated pilots may go up to 12 months following their instrument ride before they are required to conduct any actual or simulated instrument flying. After 12 months, the regulations require pilots to have completed 6 hours of instrument flying, including 6 instrument approaches during the previous 6 months to maintain their instrument qualification (the 6/6/6 requirement). Many of these instrument-rated pilots do not routinely conduct instrument flight training or operations to maintain a reasonable degree of instrument flying proficiency. As a result, pilots who have had little to no instrument flying experience for 12 months may legally be called upon to carry out, and may accept, a challenging instrument flight without recent practice in the skills essential to the safe conduct of an instrument flight.

As identified in Transport Canada's (TC) Instrument Procedures manual, instrument flight is a skill that requires "careful training, constant practice and a methodical approach." As for any other skill, repetition is essential to prevent erosion of a pilot's instrument flying skill. As explained above, the instrument currency requirements allow for an extended period (i.e., up to 12 months) to lapse before a pilot is required to complete any type of instrument flight. In contrast, there are a number of semi-annual currency requirements in the CARs, such as takeoffs and landings, which a pilot must complete in order to remain current for operational duty. A similar semi-annual requirement also exists for instrument flight; however, it only applies after the first 12 months following the issuing or renewal of an instrument rating. TC does not impose the 6/6/6 instrument currency requirement during the first 12 months. In the United States, the *Federal Aviation Regulations* (FARs) paragraph 61.57(c) specifies semi-annual instrument currency requirements that must be met before a pilot can act as pilot-in-command under instrument flight rules or in weather conditions less than the minimums prescribed for visual flight rules only.

The instrument recency requirements in the CARs do not provide adequate assurance that an instrument-rated pilot will possess an acceptable level of proficiency to ensure the safe conduct of a flight in challenging instrument meteorological conditions. As a result, pilots may conduct flights in challenging instrument meteorological or dark night conditions without the level of instrument flying proficiency required to maintain safe flight operations.

Therefore, the Board recommended that

the Department of Transport establish instrument currency requirements that ensure instrument flying proficiency is maintained by instrument-rated pilots, who may operate in conditions requiring instrument proficiency.

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Previous responses and assessments

September 2016: response from Transport Canada

Transport Canada agrees with this recommendation.

TC plans to address this recommendation via a regulatory amendment and will engage the aviation community on the subject in summer 2017.

December 2016: update from Transport Canada

Transport Canada will be conducting an internal assessment on this issue, with input from many different areas within [the] Civil Aviation [Directorate]. A recommendation will be brought to senior management for approval and the aviation community will then be consulted through a Preliminary Issue & Consultation Assessment (PICA) form in the fall of 2017. Comments received through the PICA will be considered while drafting the Notice of Proposed Amendments (NPA).

December 2016: TSB assessment of the response (Satisfactory Intent)

The Board is pleased that TC plans to address this recommendation via a regulatory amendment. The Board is optimistic that the amendment will significantly reduce or eliminate the safety deficiency associated with this recommendation. However, until the regulatory amendment is published, it is impossible to determine whether or not the safety deficiency will be adequately addressed.

Therefore, the response to Recommendation A16-09 is assessed as **Satisfactory Intent**.

October 2017: response from Transport Canada

TC agrees with the recommendation.

Due to other Ministerial priorities and commitments, such as UAV's and Fatigue Risk Management, TC has been unable to move ahead on this file.

It is TC's intention to commence work on this file by summer 2018.

March 2018: TSB assessment of the response (Satisfactory Intent)

In 2016, TC stated that it would address the safety deficiency identified in Recommendation A16-09 by introducing new instrument currency requirements in the *Canadian Aviation Regulations* (CARs). To do so, TC has made the following undertakings:

- TC stated it would conduct an internal assessment in response to Recommendation A16-09, before making its own recommendations to senior TC management;
- TC stated it would consult the civil aviation industry by means of a Preliminary Issue and Consultation Assessment (PICA) to discuss new instrument currency requirements; and
- Upon assessing the comments received through the PICA, TC plans to draft a Notice of Proposed Amendment to update existing instrument currency requirements.

However, due to other priorities and commitments, TC did not initiate its work for any of these undertakings.

Until TC's planned internal assessment reaches conclusions as to how it can establish new instrument currency requirements that satisfy Recommendation A16-09, and TC provides the TSB with its plan of action moving forward following those conclusions, it is unclear when or how the safety deficiency identified in Recommendation A16-09 will be addressed.

Therefore, the response to Recommendation A16-09 remains as **Satisfactory Intent**.

March 2019: response from Transport Canada

TC agrees with the Board's recommendation.

To address this recommendation, Transport Canada released AC401-004 *Conduct of Instrument Proficiency Checks*, effective November 1, 2015.¹ Specifically, the document describes how instrument rated pilots can demonstrate compliance with currency requirements of an instrument rating.

To further address this recommendation, TC needs additional time to make regulatory changes to the CARs that would require a recency demonstration within the first 12 months following the completion of an Instrument Flight Check.

May 2019: TSB assessment of the response (Satisfactory Intent)

In its latest response, Transport Canada (TC) indicated that it has issued Advisory Circular (AC) 401-004 *Conduct of Instrument Proficiency Checks*, which became effective on

¹ Transport Canada (2019), Advisory Circular 401-004, *Conduct of Instrument Proficiency Checks*, at <https://www.tc.gc.ca/en/services/aviation/documents/AC-401-004.pdf> (last accessed on 06 May 2020).

01 November 2015, and describes how instrument-rated pilots can demonstrate compliance with currency requirements of an instrument rating.

The purpose of AC 401-004 is to set out “...the reference documents, techniques, procedures and the marking criteria to be used...for the conduct of an Instrument Proficiency Check (IPC).” An IPC must be completed within the 24 months preceding an instrument flight rules flight. The AC highlights that it may be desirable to seek recurrent instrument training prior to conducting the IPC; however, the AC is “provided for information and guidance purposes” and “...does not establish minimum standards.”

In addition, TC indicated that additional time is required to implement regulatory amendments to the *Canadian Aviation Regulations*, and that work in that regard has yet to start. TC anticipates that this matter will be considered as part of its fall 2019 regulatory prioritization process.

As such, until TC provides additional details on its proposed regulatory amendments, including timelines, it is not possible for the Board to determine to what extent these actions will address the safety deficiency identified in Recommendation A16-09.

Therefore, the response to Recommendation A16-09 remains as **Satisfactory Intent**.

December 2019: response from Transport Canada

TC agrees with the recommendation.

An internal assessment regarding instrument proficiency and currency requirements is ongoing to determine if any further regulatory changes are needed.

In the meantime, TC has taken steps to make it easier for pilots to maintain their instrument currency. Subsection 401.05(3)² of the CARs was amended³ in May 2019 to remove the requirement that Instrument Flight Rules (IFR) ratings be renewed every two years. As a result, IFR ratings are non-expiring as long as the pilot meets the conditions outlined in the CARs (including recency requirements).

As part of this change, the recency requirements were amended to require that a pilot with an IFR rating must successfully complete, within the 24 months prior to the flight, an alternative to the mandatory flight test. The alternatives include: the use of flight simulators, recognizing the use of the Canadian Forces instrument check or the use of a foreign instrument proficiency check.

² *Canadian Aviation Regulations* (SOR-96-433), Subsection 401.05(3), at <https://lois-laws.justice.gc.ca/eng/regulations/SOR-96-433/FullText.html#s-401.01> (last accessed on 06 May 2020).

³ *Canada Gazette*, Part II, Volume 153, No. 10, at <http://www.gazette.gc.ca/rp-pr/p2/2019/2019-05-15/html/sor-dors119-eng.html> (last accessed on 06 May 2020).

Prior to the amendment, TC released AC 401-004⁴ in March 2019, *Conduct of Instrument Proficiency Checks*, which describes how instrument rated pilots can demonstrate compliance with the recency requirements of Subsection 401.05(3) of the CARs.

February 2021: update from Transport Canada

TC is continuing to work with Regulatory Services to address this recommendation. It is anticipated that a package will be developed and submitted into process by June 1, 2021.

March 2021: TSB assessment of the response (unable to assess)

In its responses, Transport Canada (TC) indicated that it agreed with the recommendation and that an internal assessment to determine the need for additional regulatory changes regarding instrument proficiency and currency requirements was ongoing. TC first advised the TSB in 2016 that it would be conducting an internal assessment, and that recommendation A16-09 was going to be addressed via a regulatory amendment. To date, neither of these actions have been completed; however, TC has:

- in November 2015, issued Advisory Circular (AC) 401-004 – *Conduct of Instrument Proficiency Checks*, which describes how instrument-rated pilots can demonstrate compliance with currency requirements of an instrument rating; and
- in May 2019, amended subsection 401.05(3) of the *Canadian Aviation Regulations* (CARs) to remove the requirement to renew instrument flight rules (IFR) ratings every two years.

It is unclear how the changes to subsection 401.05(3) of the CARs, specifically the removal of the requirement to renew IFR ratings every 2 years, will reduce or eliminate the safety deficiency associated with this recommendation. The Board notes that there is now a requirement to complete successfully, within the 24 months prior to the IFR flight, an alternative to the mandatory flight test (described in AC 401-004). However, this requirement does not adequately ensure that instrument-rated pilots maintain the proficiency required to operate in conditions requiring instrument proficiency, because it still allows pilots to conduct an IFR flight even if they have not completed any IFR flying, which is a perishable skill, within the past year.

Until TC completes its internal assessment and determines what, if any, regulatory changes it will initiate, the safety deficiency identified in Recommendation A16-09 will remain.

Therefore, the response to Recommendation A16-09 is assessed as **Unable to Assess**.

September 2021: response from Transport Canada

Transport Canada (TC) agrees with the recommendation.

⁴ Transport Canada (2019), Advisory Circular 401-004, *Conduct of Instrument Proficiency Checks*, at <https://www.tc.gc.ca/en/services/aviation/documents/AC-401-004.pdf> (last accessed on 06 May 2020).

Since the recommendation was issued in June 2016, TC planned to address the described safety deficiency via a regulatory amendment and to engage the aviation community on the subject. While pursuing the regulatory amendment, TC released Advisory Circular (AC) 401-004 *Conduct of Instrument Proficiency Checks*,⁵ effective November 1, 2015. Specifically, the document describes how instrument rated pilots can demonstrate compliance with currency requirements of an instrument rating.

In May 2019, TC took steps to make it easier for pilots to maintain their instrument currency by amending Subsection 401.05(3) of the *Canadian Aviation Regulations* (CARs) to remove the requirement that Instrument Flight Rules (IFR) ratings be renewed every two years. As a result, IFR ratings are non-expiring as long as the pilot meets the conditions outlined in the CARs (including recency requirements).

Since the previous update in December 2019, TC completed an internal assessment of instrument proficiency and currency requirements, concluding that further amendments are warranted to address the safety deficiency described in the recommendation. TC is planning to publish an amendment to CARs 401.05(3.1) and 401.05(3)(d) to change the period of recency of instrument experience. This amendment is included in a Training Regulatory Package that will be published in the *Canada Gazette* Part I in Spring 2022.

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

In its latest response, Transport Canada (TC) stated that it agrees with Recommendation A16-09.

Since the last update, TC has completed an internal assessment of instrument proficiency and currency requirements, concluding that further amendments are warranted to address the safety deficiency described in the recommendation. In addition, TC is planning to publish an amendment to *Canadian Aviation Regulations* (CARs) 401.05(3.1) and 401.05(3)(d) to change the period of recency of instrument experience in the *Canada Gazette*, Part I, in Spring 2022.

Although the Board notes the planned regulatory amendments, it remains unclear if these changes will adequately address the safety deficiency described in the recommendation. The Board agrees that more needs to be done to ensure that instrument-rated pilots maintain the proficiency required to operate in conditions requiring instrument proficiency, and that this will need to be clearly established within instrument proficiency and currency requirements.

Therefore, the response to Recommendation A16-09 is assessed as **Satisfactory in Part**.

⁵ Transport Canada (2019), Advisory Circular (AC) 401-004, *Conduct of Instrument Proficiency Checks*, at <https://tc.canada.ca/en/aviation/reference-centre/advisory-circulars/advisory-circular-ac-no-401-004> (last accessed on 06 May 2020).

Latest response and assessment

October 2022: response from Transport Canada

Transport Canada (TC) agrees with the recommendation.⁶

Since the recommendation was issued in June 2016, TC planned to address the described safety deficiency via a regulatory amendment and to engage the aviation community on the subject. While pursuing the regulatory amendment, TC released Advisory Circular (AC) 401-004 *Conduct of Instrument Proficiency Checks*⁷, effective November 1, 2015. Specifically, the document describes how instrument rated pilots can demonstrate compliance with currency requirements of an instrument rating.

In May 2019, TC took steps to make it easier for pilots to maintain their instrument currency by amending Subsection 401.05(3) of the CARs to remove the requirement that Instrument Flight Rules (IFR) ratings be renewed every two years. As a result, IFR ratings are non-expiring as long as the pilot meets the conditions outlined in the *Canadian Aviation Regulations* (CARs) (including recency requirements).

TC completed in 2019 an internal assessment of instrument proficiency and currency requirements, concluding that further amendments are warranted to address the safety deficiency described in the recommendation.

In 2021, Multi-Disciplinary Task Team meetings comprised of aviation industry and TC experts were held to discuss training related regulatory issues, including TSB Recommendation A16-09. The proposed regulatory amendments were well received by the Task Team members. This amendment was also included in a Notice of Proposed Amendment (NPA 2022-001⁸) that was circulated via the Canadian Aviation Regulation Advisory Council consultation system in February 2022 for a 30-day comment period, and no concerns were raised over the proposed regulatory amendments.

In the previous update in September 2021, TC had planned to publish an amendment to CARs 401.05(3.1) and 401.05(3)(d) to change the period of recency of instrument experience in a regulatory proposal that was targeting publication in the *Canada Gazette* Part I (CGI) in Spring 2022, but delays occurred as a result of the COVID-19 pandemic.

⁶ 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.

⁷ Transport Canada (2019), Advisory Circular (AC) 401-004, *Conduct of Instrument Proficiency Checks*, at <https://tc.canada.ca/en/aviation/reference-centre/advisory-circulars/advisory-circular-ac-no-401-004> (last accessed on 27 March 2023).

⁸ Transport Canada (2022), NPA 2022-001, *Personnel Qualifications Training and Licensing*, at <https://tc.canada.ca/en/corporate-services/acts-regulations/list-regulations/canadian-aviation-regulations-sor-96-433/canadian-aviation-regulation-advisory-council-carac> (last accessed on 27 March 2023).

The proposed amendments are now anticipated for publication in CGI in Spring 2023. In the interim, AC 401-004 provides guidance material regarding how instrument rated pilots can demonstrate compliance with the recency requirements of Subsection 401.05(3) of the CARs.

March 2023: TSB assessment of the response (Satisfactory Intent)

In its latest response, Transport Canada (TC) reiterated that it agrees with Recommendation A16-09.

The Board acknowledges TC's efforts to date and the delays encountered resulting from the COVID-19 pandemic. In a previous update in September 2021, TC had planned to publish in Spring 2022 proposed regulatory amendments to change the period of recency of instrument experience in the *Canada Gazette*, Part I. However, this did not occur, and publication is now anticipated for Spring 2023. The proposed regulatory changes were included in a Notice of Proposed Amendment (NPA 2022-001) that was sent to the Canadian Aviation Regulation Advisory Council for consultation in February 2022. NPA 2022-001 is currently pending a technical committee meeting.

As stated in NPA 2022-001, the proposed amendments to *Canadian Aviation Regulations* (CARs) 401.05(3.1), resulting from Recommendation A16-09, would change wording to reflect the currency requirements being valid in the last 6 months, instead of the last 12 months. Also, the existing text in CARs 401.05(3.1)(b) would be amended to reflect that a holder of a pilot licence with an instrument rating, or to which instrument rating privileges are attached, must have acquired 6 hours of instrument time and completed 6 instrument approaches to the minima in accordance with approved instrument approach procedures within the 6 months preceding the flight.

The Board is encouraged by TC's NPA to address the period of recency and proficiency of instrument experience. If the regulations are implemented as proposed, the risk associated with the safety deficiency identified in Recommendation A16-09 should be addressed.

Therefore, the Board considers the response to Recommendation A16-09 to show **Satisfactory Intent**.

File status

The TSB will continue to monitor the progress of TC's planned actions to mitigate the risks associated with the safety deficiency identified in Recommendation A16-09, and it will reassess the deficiency on an annual basis or when otherwise warranted.

This deficiency file is **Active**.