



Advisory Circular

Subject: Conduct of Instrument Proficiency Checks

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1.0 INTRODUCTION

- (1) This Advisory Circular (AC) is provided for information and guidance purposes. It describes an example of an acceptable means, but not the only means, of demonstrating compliance with regulations and standards. This AC on its own does not change, create, amend or permit deviations from regulatory requirements, nor does it establish minimum standards.

1.1 Purpose

- (1) The purpose of this document is to set out the reference documents, techniques, procedures and the marking criteria to be used by Transport Canada Civil Aviation Inspectors, delegated Pilot Examiners (PE) – Instrument Rating and Approved Check Pilots (ACP) for the conduct of an Instrument Proficiency Check (IPC).
- (2) The goal of this circular is to help the examiner determine that a pilot seeking an IPC recency endorsement has both the knowledge and skills for safe flight in all aspects of instrument flying.
- (3) This information is also available to the aviation industry for information purposes.

1.2 Applicability

- (1) The IPC is an event for meeting the instrument rating recency requirements set out in Global Exemption NCR-040-2015 and subsection 401.05(3) of the *Canadian Aviation Regulations* (CARs).
- (2) This document applies to all holders of instrument ratings, Transport Canada Civil Aviation (TCCA) employees and to individuals exercising privileges granted to them under an External Ministerial Delegation of Authority in accordance with subsection 4.3(1) of Part 1 of the *Aeronautics Act*.
- (3) **All holders of Instrument Ratings may meet the recency requirements for their instrument rating by means of an IPC.**
- (4) **Pilots employed by Subpart 4 of Part VI Private Operators or Part VII Air Operators generally meet the recency requirements for their instrument rating by means of a pilot competency check (PCC), Line Oriented Evaluation (LOE) or pilot proficiency check (PPC), as appropriate, instead of an IPC.** Pilots employed by Part VII Operators – Visual Flight Rules-Only and CAR 406 FTUs must use the IPC to meet the recency requirements for their instrument ratings, as a VFR Pilot Proficiency Check (PPC) does not include the instrument rating sequences.
- (5) When performing their duties, delegates of the Minister must follow the procedures specified in this circular and the Flight Test Guides referenced in this circular.

1.3 Description of Changes

- (1) Changes incorporated into this Fourth Edition is to correct and make aware to industry and Transport Canada Inspectorate of the following changes:
 - (a) Appendices A and B for recovery from unusual attitudes are not to be conducted on helicopters. (Page 11 – 6.3 Flight Activities)
 - (b) The requirement to have certified installations of GNSS receivers on helicopters is waived until the Second Edition of the Flight Test Guide – Instrument Rating – Group 4 – Helicopter TP15099 has been issued. (Page 11 – 6.3 Flight Activities)

Note: *The evaluation of the manoeuvres stipulated in Appendices A and B will be recorded in the "Remarks" section of the Flight Test Report – Instrument Rating (Form 26-0526).*

2.0 REFERENCES AND REQUIREMENTS

2.1 Reference Documents

- (1) It is intended that the following reference materials be used in conjunction with this document:
 - (a) *Aeronautics Act* (R.S., 1985, c. A-2);
 - (b) Part IV, Subpart 401 of the *Canadian Aviation Regulations (CARs) — Flight Crew Permits, Licences and Ratings*;
 - (c) Standard 421 of the CARs — *Flight Crew Permits, Licences and Ratings*;
 - (d) Global Exemption NCR-040-2015 - Exemption from paragraph 401.03 (1)(b) and section 401.48 of the CARs ;
 - (e) Transport Canada Publication, TP 14277, Current Edition — *Pilot Examiner Manual*;
 - (f) Transport Canada Publication, TP 9939, Current Edition — *Flight Test Guide – Aeroplane – Groups 1, 2 and 3*;
 - (g) Transport Canada Publication, TP 15099, Current Edition — *Flight Test Guide – Helicopter – Group 4*;
 - (h) Transport Canada form number 26-0526 — *Flight Test Report – Instrument Rating*;
 - (i) Canada Air Pilot (CAP) – General Pages – Current Edition;
 - (j) Canada Air Pilot (CAP) – Current Approach Charts (or equivalent such as Jeppesen or NOAA).

2.2 Cancelled Documents

- (1) Not applicable.
- (2) By default, it is understood that the publication of a new issue of a document automatically renders any earlier issues of the same document null and void.

2.3 Definitions and Abbreviations

- (1) The following **definitions** are used in this document:
 - (a) **Approved Check Pilot:** a person delegated by the Minister and authorized to conduct pilot proficiency checks on specific types of aircraft.
 - (b) **Error:** an action or inaction by the flight crew that leads to a variance from operational or flight crew intentions or expectations.
 - (c) **Examiner:** an authorized Transport Canada Civil Aviation Inspector, a Pilot Examiner or an Approved Check Pilot designated by the Minister pursuant to Subsection 4.3(1) of Part 1 of the *Aeronautics Act* and in accordance with section 401.15 of the CARs.
 - (d) **Flight Simulation Training Device:** a level B, C or D full-flight simulator or a Flight Training Device (FTD) Level 2 IPC/MCC or higher certified for instrument proficiency checking.
 - (e) **Flight Test:** a licensing event conducted to confirm that a candidate has the practical knowledge and skill required to obtain a permit, licence or rating and for making application for a higher licence or for changing to another aircraft group.

- (f) **Instrument Proficiency Check:** a recurring event to confirm retention of a level of practical knowledge and flight proficiency that meets the standards of performance required for the issuance of an Instrument Rating.
 - (g) **Pilot Examiner:** (PE) a person delegated by the Minister that is qualified on the aircraft type used for the IPC and is authorized to conduct specific flight tests.
 - (h) **Proficiency:** being prepared to handle any situation with which you might reasonably be presented during a flight.
 - (i) **Training to Proficiency:** A basic curriculum is developed, taught and learned. Skills are assessed, and hazards are presented that challenge and measure the quality of the training achieved. The application of the skill is then tested in a simulated environment or in an operational environment with simulated or direct interaction with Air Traffic Services (ATS). In a simulated environment, risks can be taken and difficult scenarios emulated to rapidly assess the response of the trainee. When the trainee has demonstrated that predetermined criteria have been met without major error, *proficiency* will have been demonstrated.
- (2) **The following abbreviations** are used in this document:
- (a) **ACP:** Approved Check Pilot;
 - (b) **AIM:** Aeronautical Information Manual;
 - (c) **ATC:** Air Traffic Control;
 - (d) **ATS:** Air Traffic Services;
 - (e) **CAP:** Canada Air Pilot;
 - (f) **CAR:** Canadian Aviation Regulation;
 - (g) **FSTD:** Flight Simulation Training Device;
 - (h) **GPS:** Global Positioning System;
 - (i) **IFR:** Instrument Flight Rules;
 - (j) **ILS:** Instrument Landing System;
 - (k) **IMC:** Instrument Meteorological Conditions;
 - (l) **IPM:** Instrument Procedures Manual;
 - (m) **IPC:** Instrument Proficiency Check.

3.0 BACKGROUND

- (1) Transport Canada completed a risk assessment in 2007 in order to assess the conversion of the Instrument Rating to a non-expiring qualification. It was determined that associated risks could be mitigated to an acceptable level by introducing certain blended recency options, including the introduction of an Instrument Proficiency Check (IPC).
- (2) In November 2009, a series of notices of proposed amendments (NPAs) were presented at a Canadian Aviation Regulation Advisory Council (CARAC) Technical Committee meeting. The NPAs (2009-031 to 2009-045, excluding 2009-035) introduced an IPC as a new requirement for Instrument Flight Rules (IFR) recency requirements. The proposed amendments were accepted without dissent by the CARAC Technical Committee and later approved by the Civil Aviation Regulatory Committee (CARC) in October 2010.

- (3) On September 16th, 2015, Global Exemption NCR-040-2015 was signed to exempt holders of an Instrument Rating from section 401.48 of the *Canadian Aviation Regulations* (CARs) that limited the validity period to 24 months.
- (4) As a result of the exemption, an Instrument Rating neither expires nor is subject to licensing renewal under section 401.49 of the CARs – *Renewal of Instrument Rating*. Further, failures of instrument flight sequences during Pilot Proficiency Checks (PPC) or IPC no longer invoke suspensions of instrument rating privileges pursuant to subsection 401.17(1) – *Failure of a Flight Test for Rating Renewal* of the CARs. Such failures will only cause failure of a PPC or failure to endorse proficiency at the conclusion of an IPC.
- (5) The endorsement of proficiency following a successful IPC will meet the recency requirements of the exemption and subsection 401.05(3) of the CARs, when amended, for a period of exactly 24 months, day for day (same date + 2 years), following an IPC, pursuant to Section 28 of the *Interpretation Act*.
- (6) Following the end of the 1st day of the 13th month of the 24 month period, the current requirement of subsection 401.05(3) of the CARs requiring the completion of at least 6 hours of instrument time and 6 instrument approaches during the 6 months prior to an IFR flight applies.

4.0 CONDITIONS FOR COMPLETING AN INSTRUMENT PROFICIENCY CHECK

- (1) One of the conditions that will allow someone to meet the recency requirements of Global Exemption NCR-040-2015 and subsection 401.05(3) of the CARs, when amended, is to complete an IPC within the 24 months preceding an IFR flight.
- (2) An IPC that complies with the requirements of the exemption associated with an Instrument Rating will:
 - (a) consist of tasks representative of those required by Sections 1 to 4 of Schedule 8(5) of Section 428 of the Personnel Licensing and Training Standards – *Conduct of Flight Tests* and the current editions of Flight Test Guides TP9939 or TP15099, as applicable to the category of aircraft; plus the following manoeuvres as described in Appendices A and B:
 - (i) recovery from an unusual attitude using all available flight instruments;
 - (ii) recovery from an unusual attitude using a limited panel or standby instruments only.
 - (b) be carried out in accordance with this Advisory Circular 401-004 – Conduct of Instrument Proficiency Checks;
 - (c) be carried out in:
 - (i) an aircraft equipped with a certified and approved GNSS receiver installation of the same group pursuant to subsection 421.46(1) meeting the requirements of section 605.18 of the CARs – *Powered Aircraft – IFR*; or
 - (ii) a flight simulation training device (FSTD) that is approved for instrument flight testing including the conduct of GNSS approaches and configured for the same aircraft group pursuant to Standard 421.46(1) of the CARs.

Note: Owners of private non-GNSS equipped aircraft may use their privately-registered aircraft for the conduct of their personal IPC.

 - (d) be conducted by any of the following persons that holds a valid instrument rating for the same group of aircraft pursuant to Standard 421.46(1) of the CARs:
 - (i) any qualified Transport Canada Civil Aviation Inspector or Canadian Pilot Examiner authorized to conduct Instrument Rating flight tests who meet the requirements of subsections (1) and (9) of Standard 425.21 of the CARs;

[Qualified on the aircraft type and meets the aircraft familiarity requirements of the Pilot Examiner Manual];

- (ii) any Canadian Approved Check Pilot (ACP) that is authorized to conduct PPC/IFC flight checks and who meets the requirements of subsections (1) and (9) of Standard 425.21 of the CARs, [Qualified for and familiar with the specific type or variant of aircraft on which the IPC is conducted and meets the aircraft familiarity requirements of the Approved Check Pilot Manual. Subsection 425.21(9) does not require the holding of a Flight Instructor Rating.];
- (iii) a person who holds an authorization equivalent to a Canadian pilot examiner or ACP from a Contracting state having a reciprocal licensing agreement with Canada; or
- (iv) a Canadian Forces Instrument Check Pilot, provided that the person being tested is a member of the Canadian Forces.

5.0 TRAINING TO PROFICIENCY PRIOR TO THE INSTRUMENT PROFICIENCY CHECK

- (1) Depending on the pilot's level of instrument flight experience and recency, it may be desirable to seek recurrent training from a flight instructor qualified in accordance with Standard 425.21(9) of the CARs to achieve proficiency prior to attempting the IPC.
- (2) **Preparatory training prior to an IPC must be conducted by a flight instructor qualified in accordance to Standard 425.21(9) of the CARs that is not the examiner that will conduct the IPC.** Deviations require prior written approval from the Transport Canada Regional Office.
- (3) The flight instructor performs a vital and influential role in aviation as an aviation educator. The flight instructor – instrument rating carries great responsibility to ensure that candidates achieve a level of proficiency consistent with safe IFR flight in instrument meteorological conditions (IMC).
- (4) Weather is still the factor most likely to result in aviation accidents with fatalities. Notwithstanding the common reminder that an instrument rating is not an “all weather licence”, the instructor's endorsement for instrument privileges attests that the pilot has the knowledge and skill to operate safely in reasonable IMC during all phases of flight.
- (5) The instructor who trains a pilot for the initial instrument rating can develop a comprehensive picture of that pilot's instrument flying knowledge, skills, and judgment, usually in an aircraft familiar to both the instructor and the trainee. By contrast, two special challenges arise for the examiner who administers the instrument proficiency check (IPC). First, an IPC more often requires short-term evaluation of an unknown pilot, possibly with the added challenge of unfamiliar avionics, particularly in technically-advanced aircraft. In addition, the IPC is not always conducted in the “real-world” IMC flying environment.
- (6) To ensure that the IPC serves the purpose for which it was intended, this circular stipulates that the flight portion of an IPC must include all of the sequences, manoeuvres and performance criteria as specified in TP9939 – Flight Test Guide – Instrument Rating – Groups 1, 2 and 3 - Aeroplane or TP15099 Flight Test Guide – Instrument Rating – Group 4 - Helicopter. This circular offers additional guidance, with special emphasis on conducting a thorough ground review, as there could be a substantial period since the pilot last wrote an instrument rating examination.
- (7) The training to proficiency, which should also review basic attitude instrument and partial panel flying, may be conducted in an FSTD or with a view-limiting device for IFR manoeuvres in VMC conditions. Under simulated IMC conditions, the pilot should be given a scenario where a simulated emergency requires navigating to an alternate destination. Using all available appropriate resources, the pilot should demonstrate the ability to control the aircraft while calculating the course, heading, distance, time and fuel required to reach the new destination. At

the unexpected alternate, the pilot should be asked to conduct an approach (with or without circling), a missed approach and a hold.

- (8) The navigation to an alternate exercise has several benefits:
 - (a) First, it generates “teachable moments” which are those times when the pilot is most aware of the need for certain information or skills and is most receptive to learning.
 - (b) Second, it quickly and efficiently reveals the pilot’s level of skill in each of the three areas listed in section 6.3 of this document.

5.1 Risk Management and Personal Minimums

- (1) Ground discussion should include all risk factors that affect the planned flight, as well as the types of trips the pilot typically flies.
- (2) For example:
 - (a) Pilot: general health, physical / mental / emotional state; proficiency, recency;
 - (b) Aircraft: airworthiness, equipment, performance capability;
 - (c) Environment: weather hazards, terrain, airports / runways to be used, icing conditions;
 - (d) External pressures: meetings, people waiting at destination, etc.
- (3) For each risk factor identified, ask the pilot what strategies can be used to mitigate or eliminate the danger. This part of the preparation for the IPC also offers an excellent opportunity to discuss personal minimums, and to help the pilot complete a personal minimums worksheet if he or she has never done so.
- (4) Personal Minimums Checklist: One of the most important concepts to convey is that safe pilots understand the difference between what is “legal” in terms of the regulations, and what is “smart” or “safe” in terms of pilot experience, proficiency and aircraft capabilities and equipment. For this reason, assistance in completing a Personal Minimums Checklist tailored to the pilot’s individual circumstances is perhaps the single most important “takeaway” item one can offer. Use the Personal Minimums Checklist to help the pilot work through some of the questions that should be considered in establishing “hard” personal minimums, for the pre-flight and the in-flight decision-making for flight under IFR.
- (5) It may also be helpful to include key findings from accident data. For example, instrument pilots should be aware that non-precision approaches have an accident rate five times greater than precision approaches. Circling approaches, particularly at night, also increase risks, so pilots should consider if a tailwind landing is more acceptable than a circling approach.
- (6) The use of Constant Descent Final Approach technique should be encouraged for all non-precision approaches.
- (7) A Personal Minimums Checklist may be developed using the example at the following website:
https://www.faa.gov/training_testing/training/fits/guidance/media/personal%20minimums%20checklist.pdf

6.0 CONDUCT OF AN INSTRUMENT PROFICIENCY CHECK

- (1) The IPC is a recurring recency event that confirms retention of a level of proficiency meeting the standards of performance required for the issuance of an Instrument Rating and demonstrates meeting the standards for the endorsement and certification of proficiency.
- (2) The holder of an Instrument Rating must have successfully completed an IPC, PPC or PCC within the previous 24 months prior to exercising the privileges of an Instrument Rating, as

stipulated by Exemption NCR-040-2015 or subsection 401.05(3) of the CARs – *Recency Requirements*, when amended. *(The IPC replaces the previous requirement to complete a renewal flight test for licensing purposes.)*

- (3) The holder will undertake an IPC with an authorized and qualified examiner to demonstrate knowledge of flight planning and IFR procedures as well as to demonstrate the skills required to execute all of the tasks required for the issuance of an Instrument Rating.

6.1 Preparation

- (1) Regulatory and Aircraft Review – self-study of the pertinent parts of the Aeronautical Information Manual (AIM), the Instrument Procedures Manual (IPM), aviation weather manuals and the Pilot Operating Handbook, Aircraft Flight Manual or Rotorcraft Flight Manual for the aircraft to be used.
- (2) Cross-Country Flight Planning Assignment (XC) – Because IFR flying is almost always for transportation purposes, structuring the IPC as an IFR cross-country - ideally one representative of the pilot's typical IFR flying - is an excellent way to evaluate real world instrument flying skills. The airports used should have at least one published instrument approach procedure. The flight plan should include consideration of all pre-flight planning elements required, as well as appropriate instrument departure, arrival, and approach procedures. It should be based on a standard weather briefing for the day of the IPC. If the ground and flight portions take place on different days, the pilot should have current weather for each session.
- (3) To ensure a thorough evaluation of the pilot's weather interpretation and analysis skill, especially if the weather for the actual IPC is Marginal Visual Flight Rules (MVFR) or better, it is recommended that the examiner prepares in advance a weather briefing for the assigned route on an IMC day. You can either provide this IFR weather scenario to the pilot for advance analysis, or present it during the session for an on-the-spot review and evaluation.

6.2 Ground Review

- (1) Knowledge is the key to safe instrument operations, but it needs to be much deeper than the ability to recite rules and regulations. Scenario-based training is a very effective way to test a pilot's knowledge in the context of real-world IFR flying, so consider using the pre-assigned XC flight plan as a basis for both the ground review and the actual flight. A good ground review technique is to work through rules and "real world" procedures related to each phase of flight from departure to the destination airport. For a flight under IFR, the pilot must become familiar with "all available information."
- (2) Complete an extensive sampling of the following subject areas:
 - (a) Pre-Flight:
 - (i) Describe weather conditions for departure, enroute and arrival;
 - (ii) Evaluate current/forecast weather in terms of:
 - (A) Personal minimums
 - (B) Aircraft Equipment
 - (C) Icing and turbulence
 - (D) Terrain/obstacle avoidance
 - (E) Distance, time and fuel to nearest alternate or VMC conditions
 - (iii) Confirm expected performance and equipment required (airworthiness);
 - (iv) Determine that the aircraft is appropriately equipped for the proposed flight;
 - (v) Calculate expected aircraft performance (takeoff/landing distances, crosswind conditions and cruise performance) under known and forecast conditions; and

- (vi) Describe operation and failure modes of installed equipment (Global Positioning System (GPS), autopilot, and avionics) and appropriate pilot response (including the requirement to report failures to Air Traffic Control (ATC)).
- (b) Alternatives:
 - (i) Designate alternates that are not only “legal”, but also appropriate to conditions, pilot experience, needs, cross-wind, etc.;
 - (ii) Confirm length/lighting of runways to be used;
 - (iii) Determine that available runway length provides ample margin for safety for the actual or forecast conditions;
 - (iv) Explain LAHSO procedures;
 - (v) Describe expected lighting, including lighting as it applies to permitting descent below Minimum Descent Altitude (MDA) or Decision Altitude (DA).
- (c) Traffic Delays:
 - (i) Determine whether traffic delays might require holding; and
 - (ii) Describe holding procedures, hold entries and how to set up and use a GNSS moving map to fly a non-published “random” holding pattern.
- (d) Fuel Requirements:
 - (i) Calculate fuel requirements sufficient to fly approaches at both the destination and alternate; and
 - (ii) Decide on the amount of reserve fuel.
- (e) Taxi, Takeoff and Departure:
 - (i) Taxi Procedures and Runway Incursion Avoidance; and
 - (ii) Instrument Departures.
- (f) En Route:
 - (i) Airways and Route Systems;
 - (ii) Enroute Navigation – Ground review focusing on use of the specific navigational equipment installed in the aircraft and to be used for the IPC;
 - (iii) Enroute Weather – Ensure that the pilot is thoroughly familiar with sources of in-flight weather information;
 - (iv) Abnormal Procedures and Emergencies – A ground review of abnormal/emergency procedures for IFR operations:
 - (A) Loss of two-way communications,
 - (B) Loss of avionics/equipment/instruments,
 - (C) Loss of Primary Flight Display/ Multi-Function Display/Autopilot,
 - (D) Airframe icing.
- (g) Arrival and Approach Procedures:
 - (i) Check the pilot’s understanding of the ways to fly an instrument approach:
 - (A) Procedure turns,
 - (B) Radar vectors,
 - (C) Via direct the Initial Fix (IF);
 - (ii) Standard Terminal Arrival Procedures (STAR);

- (iii) Holding;
- (iv) Instrument Approach Procedures – In addition to reviewing the terms, symbols, and basic steps for flying a conventional instrument approach procedure (e.g., Instrument Landing System (ILS), Localizer (LOC), Very High Frequency Omnidirectional Range (VOR), Non-Directional Beacon (NDB)), you will also want to see whether the pilot understands Area Navigation (RNAV) and Global Navigation Satellite System (GNSS) procedures and charting formats, with special emphasis on the minimums section;
- (v) Circling Approaches.
- (h) Missed Approach Procedures (MAP):
 - (i) The missed approach procedure can be one of the most challenging manoeuvres a pilot can face, especially when operating as single-pilot in IMC. Important topics to cover in the IPC ground review include:
 - (A) The point at which you must execute the MAP, when flying a precision approach;
 - (B) The point at which you must execute the MAP, when flying a non-precision approach;
 - (C) The correct procedure if the decision to miss is made prior to reaching the MAP;
 - (D) The factors that should be considered when deciding to make a second attempt, as opposed to proceeding to an alternate.

6.3 Flight Activities

- (1) A proficient instrument pilot must possess knowledge and skill in three distinct, but interrelated, areas:
 - (a) Aircraft control skills – basic attitude instrument flying – crosscheck, interpret, and control;
 - (b) Aircraft systems – knowledge and proficiency in instrument procedures and aircraft systems, including GNSS/Flight Management System (FMS), autopilot and data-link, where installed;
 - (c) Decision-making skills – higher-order thinking skills, flight planning, management, cockpit organization and weather analysis/awareness. *Higher-order thinking essentially means a process of thinking skills starting with knowledge-level thinking and moving eventually to evaluation-level of thinking.*
- (2) There may be a temptation to focus the flight portion of the IPC on the first of these three areas (aircraft control), and to proceed sequentially through the list of required items in the flight test guide. While these activities can provide a snapshot of the pilot's aircraft control skills, a series of approaches and other manoeuvres conducted "out of context" will tell you little about the pilot's knowledge of avionics and other aircraft systems, and even less about the pilot's ability to make safe and appropriate decisions in real-world instrument flying.
- (3) Having the pilot fly the cross-country trip you assigned and discussed during the ground review is a good way to make a thorough and integrated assessment of the pilot's knowledge, skills, and judgement. Since ATC procedures are a critical part of instrument flying ask the pilot to file an IFR flight plan "in the system", including an alternate destination. A trip that involves flying from departure to destination gives you an opportunity to evaluate the pilot's communication skills, systems knowledge and day-to-day decision-making skills, including risk management.

- (4) During the IPC, the candidate will be assessed on the following:
- (a) Unusual attitude recovery:
 - (i) using a full panel of instruments; **(See Appendix A)**
 - (ii) using a partial panel, (without an attitude indicator/flight director or directional gyro/Horizontal Situation Indicator) or in the case of an advanced electronic cockpit, without the primary flight display, only by use of the standby instruments. **(See Appendix B)**

Note 1: *The evaluation of the manoeuvres stipulated in Appendices A and B will be recorded in the "Remarks" section of Flight Test Report – Instrument Rating (Form 26-0526).*

Note 2: *Appendices A and B will only be conducted in VMC or at a height above a cloud layer that would allow an ACP, PE or Safety Pilot to safely recover in visual conditions from any potential loss of control by the candidate.*

Note 3: *Appendices A and B will not be conducted on helicopters.*

- (b) Aeroplane control skills – An IPC requires **two or more different approaches. One of the approaches will be a RNAV/GNSS approach.** For a satisfactory IPC, the pilot must be able to meet the *Performance Criteria* published for all the manoeuvres and tasks in the Flight Test Guide – Instrument Rating – Aeroplane (TP9939) or Helicopter (TP15099) for the instrument rating group held. If the pilot is flying a multi-engine aircraft, an approach with a simulated engine failure is essential.

Note 1: *Owners of privately-registered non-GNSS equipped aircraft may use their aircraft for the conduct of their personal IPC.*

Note 2: *RNAV/GNSS approaches do not have to be conducted in helicopters, presently not equipped, until the issuance of the Second Edition of TP15099 - Flight Test Guide – Instrument Rating – Group 4, which will introduce the requirement that RNAV/GNSS equipment are installed.*

- (i) Does the pilot maintain control of the aircraft when faced with a major distraction, and/or when flying the missed approach procedure?
- (c) Aircraft systems – The pilot should be thoroughly familiar with both normal and abnormal operation of all installed systems and understand how they work together in IFR flying:
 - (i) Does the pilot demonstrate required knowledge and proficiency in using installed avionics and aircraft systems, including installed GNSS moving maps and autopilot?
 - (ii) Does the pilot correctly manage the sequence for selecting navigation sources and the arming of autopilot modes?
 - (iii) Does the pilot effectively access and manage the information available in onboard databases?
- (d) Decision-making skills – Give the pilot multiple opportunities to make decisions. Asking questions about those decisions is an excellent way to get the information you need to evaluate those decision-making skills, including risk management. Be alert to the pilot's information and automation management skills as well. For example:
 - (i) Does the pilot perform regular "common sense" crosschecks of what the GPS and/or the autopilot are doing?
 - (ii) Does the pilot always maintain positional orientation when being vectored?
 - (iii) Does the pilot maintain awareness of weather, personal minimums and alternates at all times?

- (e) Situational awareness - The candidate's situational awareness will be assessed along with other factors in determining the mark awarded for each item. The candidate will be expected to demonstrate good situational awareness on a continuing basis. For example:
 - (i) Does the pilot actively monitor weather, aircraft systems, instruments and ATC communications?
 - (ii) Does the pilot avoid "tunnel vision" - awareness that factors such as stress can reduce vigilance?
 - (iii) Does the pilot "stay ahead of the aircraft" in preparing for expected or contingency situations?
 - (iv) Does the pilot remain alert to detect subtle changes in the environment?

6.4 Completion and Certification of an Instrument Proficiency Check

- (1) The sequences, manoeuvres and performance criteria required by a current edition of the *Flight Test Guide – Instrument Rating – Aeroplane* (TP9939) or the *Flight Test Guide – Instrument Rating – Helicopter* (TP15099) will be evaluated at the conclusion of the IPC by using the 4-Point Marking Scale.
- (2) The candidate must not have demonstrated any critical errors or deviations (a mark of "1") during the evaluation. For any tasks or manoeuvres where a critical error is demonstrated, the check is deemed to have been failed and a copy of the failed flight test report will be given to the candidate.
- (3) The candidate must subsequently receive supplementary training and be recommended **by a qualified instructor, other than the examiner**.
- (4) The failed report is to be given to the same or another examiner to repeat the failed item(s) in accordance with the procedures set out in section "Partial Flight Test" in *Flight Test Guide – Instrument Rating – Aeroplane - Groups 1, 2 and 3* (TP9939) or *Flight Test Guide – Instrument Rating – Helicopter - Group 4* (TP15099);
- (5) In the case of a successful IPC, the examiner who conducted the IPC will enter either the following statement in the candidate's log book:

"This is to certify that an IPC had been successfully completed on (insert date) by" (include the name, signature and licence number of the person conducting the IPC)"

OR

An entry on the Competencies Record page of the candidate's Canadian Aviation Document booklet stating the date the IPC was completed along with the name and licence number of the examiner. For example:

[2018-NOV-22], IPC, [THE EXAMINER'S NAME], [Licence No.]

- (6) The tombstone information, evaluation marks and remarks, for IPCs conducted by PEs and ACPs, will be recorded on a Flight Test Report – Instrument Rating (Form 26-0526) with a note to indicate that the event was an IPC and the date of the end of the recency period for the IPC.
- (7) **Pursuant to the *Interpretation Act* - Section 28 - Calculation of a period of months after or before a specified day, the IPC will expire date to date 24 months after the date that the IPC was conducted.**

6.5 Records

- (1) Once completed, a copy of the Flight Test Report will be given to the IPC candidate.

- (2) The examiner will retain the original until the next PE or ACP monitoring event.
- (3) Reports will be treated as confidential information in accordance with the *Privacy Act*.
- (4) Reports indicating a change of aircraft group pursuant to Subsection 421.46(1) of the Personnel Training and Licensing Standards must be sent to Transport Canada for issuance of a new licence sticker indicating the group change.
- (5) It is the responsibility of the pilot to maintain evidence of meeting the new IFR recency requirements. The pilot must be able to provide evidence of having met the Instrument Rating (IFR) recency requirements when requested to do so in accordance with paragraph 401.03(1)(d) of the CARs. The evidence can be in a variety of forms. Some examples are listed below (the pilot is not limited to these examples):
 - (a) An entry on the Competencies Record page of the candidate's Canadian Aviation Document booklet stating the date that the IPC was completed with the name and licence number of the examiner.
 - (b) An entry of the flights in the pilot log book to clearly show that the IFR recency requirements of Global Exemption NCR-040-2015 and subsection 401.05(3) of the CARs have been met; or
 - (c) A copy of the completed IPC Flight Test Report with their licence.

7.0 INFORMATION MANAGEMENT

- (1) Not applicable.

8.0 DOCUMENT HISTORY

- (1) Advisory Circular 401-004 **Issue 01**, RDIMS 10388857 (E), 10388969 (F), dated 2015-05-01 – *Conduct of Instrument Proficiency Checks (IPC)*.
- (2) Advisory Circular 401-004 **Issue 02**, RDIMS 11231146 (E), 11231162 (F), dated 2015-11-01 – *Conduct of Instrument Proficiency Checks (IPC)*.
- (3) Advisory Circular 401-004 **Issue 03**, RDIMS 13538458 (E), 14186828 (F), dated 2019-02-15 – *Conduct of Instrument Proficiency Checks (IPC)*.

9.0 CONTACT OFFICE

For more information, please contact:

Commercial Flight Standards, Flight Crew Training, Evaluation and Flight Crew Examinations
(AARTFE)

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Suggestions for amendment to this document are invited, and should be submitted via:
“the same e-mail as above”

Original signed by

Robert Sincennes
Director, Standards
Civil Aviation

APPENDIX A – RECOVERY FROM UNUSUAL ATTITUDE

Note: Appendices A and B will only be conducted in VMC or at a height above a cloud layer that would allow an ACP, PE or Safety Pilot to safely recover in visual conditions from any potential loss of control by the candidate.

Note: A view-limiting device will be worn by the candidate for the conduct of Appendices A and B.

Aim

To safely and promptly recover from one unusual attitude, by using available flight instruments.

Description

The examiner will take control and fly the aeroplane into an unusual attitude, either nose-up or nose-down with bank, then transfer control to the candidate and call for recovery. Using available flight instruments, the candidate is expected to promptly and smoothly recover to stabilized wings-level flight within the aeroplane's limitations.

Performance Criteria

Assessment will be based on the candidate's proficiency to:

- (a) recognize promptly what the aeroplane is doing by reference to the flight instruments;
- (b) apply smooth and coordinated control application in the correct sequence;
- (c) avoid and prevent entry to a stall;
- (d) recover to stabilized wings-level flight using correct instrument cross-check and interpretation.

APPENDIX B - RECOVERY FROM UNUSUAL ATTITUDE- PARTIAL PANEL

Aim

To safely and promptly recover from one unusual attitude by reference to flight instruments, but without reference to the attitude indicator and the heading indicator in the case of a traditional instrument panel or; without reference to a primary flight display and multi-function display (**standby instruments only**) in the case of a technically-advanced aeroplane.

Description

The examiner will take control and fly the aeroplane into an unusual attitude, either nose-up or nose-down with bank, then transfer control to the candidate and call for recovery. Using limited panel or standby instruments only, the candidate will promptly and smoothly recover to stabilized wings-level flight within the aeroplane's limitations.

Performance Criteria

Assessment will be based on the candidate's proficiency to:

- (a) on command, recognize the unusual flight attitude by reference to available flight instruments;
- (b) apply smooth and coordinated control application in the correct sequence;
- (c) avoid and prevent entry to a stall;
- (d) recover to stabilized wings-level flight using correct instrument cross-check and interpretation.