



International Virtual Aviation Organisation

Commercial Pilot (CP) exam

Briefing Guide and Skills test Standards

English version

Version 1.01
(13-Feb-2010)

Training director/assistant director: Ralph Henschen, Michael Hansohm
Pilot exams working group: Hervé Sors, Splendor Bouman, Peter Schott,
Christian van Haren, Iwan Blom

International Virtual Aviation Organisation Training Department, 2010

1. Requirements

- *Previous rating requirements:* have your Senior Private Pilot (SPP) for at least 60 days and at least 200 hours flying time logged on IVAN (controller hours are not taken into account),
- *Theoretical exam:* complete the Commercial Pilot (CP) online test (45 minutes to answer 20 questions randomly chosen in the database),
- *Practical exam:* perform an IFR flight under the guidance of a nominated examiner.

2. Applying for the exam

The theoretical exam can be requested through the [Upgrade / Request Exam] menu of the IVAO [Training department web page](#) or by directly assessing your [exam status page](#).

After your successful theoretical exam, you can apply for the skills test. Unlike the theoretical exam, which is automated and centralised, an examiner from your division will conduct the practical exam.

If you are not a member of an active division, or your division doesn't have a competent examiner, the exam system will assign one from another country automatically.

Once your request is registered, the examiner will contact you via the e-mail address on your details page. *Before requesting an exam, check that this e-mail is valid since it is the only way for the examiner to get in touch with you.*

3. Validation of the exam

After the skills test your examiner will send his evaluation to the Training Director who will assign a validator; the validator will verify the marking based on the comments and marking sheet of the examiner. If your exam is validated as a success your rating will be updated at 1200z the following day.

4. Skills Test

The CP exam is a series of tasks to appreciate your IFR theoretical knowledge and your practical flying skills in performing advanced IFR exercises.

4.1 IVAO software and communication modes

You can use any IVAO approved client for the exam. Visit the [IVAO virtual pilot client web page](#) (IvAp) for a complete list (the page also includes a link to the [IvAp manuals](#)).

You must use IVAO approved software with *IVAO weather* enabled. We discourage the use of other weather sources to ensure examiner and examinee use the same reference.

We strongly recommend voice communication for the exam. We do not recommend a "text-text" or "text-voice" communication method due to the increased level of difficulty and incompatibilities with certain tasks. Should a member be unable to use voice or the voice/text method, please contact the HQ Training Department before requesting the exam in order to establish an individual procedure. For some exercises, the examiner will also request you transmit in text mode either on the active frequency or in a private (chat) mode. **Note that English phraseology will be used during the skills test** and optionally for the briefing and debriefing.

4.2 IFR theoretical knowledge

You will be assessed on your theoretical IFR knowledge as part of the exam. During the briefing or at some times during the flight the examiner will ask you a few short questions on the following items:

- *Aircraft knowledge and performance*: basic weights, standard take-off and landing parameters, usual operating cruise speed(s) and flight levels, altitude and speed limitations, approach/landing configurations and speeds,
- *Chart reading, IFR procedures*: IFR charts (SID, STAR, IAP) interpretation, semi-circular rules, RVSM airspace, routing restrictions, applicable flight minimum altitudes, precision and non precision approach minima, fuel requirement and flight time estimates,
- *Flight instruments and navigation equipment*: aircraft flight instrument systems (altimeter, airspeed indicator, VSI, AI, HSI, heading indicator, electronic flight systems), altimeter settings, TAS and GS estimation, aircraft navigation systems (VOR, ADF, DME, RMI, ILS, FMS), transponders,
- *Meteorology*: METAR and TAF interpretation, en-route winds and SIGMET charts.

Some of the required knowledge can be found on the [IVAO Academy](#) site. You will find a list of other training documents you could refer to in [Appendix I](#).

4.3 Skills test

The skills test is a series of tasks laid out to evaluate your IFR flying skills.

4.3.1 General requirements

(a) A *medium (M) category twin-engine jet aircraft* such as the Boeing 737, Airbus A320, Embraer E-Jet, Fokker 100 or similar must be used for the skills test. The

aircraft must be equipped with required IFR NAV and COM equipment - this includes at least 2 VOR, 1 ILS, 1 ADF, 1 DME, 1 RMI and optionally a FMC and/or a GPS). Make sure you choose an aircraft you know well and are comfortable with. *You will have to inform your examiner of the aircraft you will use for the exam beforehand.*

(b) Use of the autopilot, FMC and/or GPS is permitted during the exam. However be aware that autopilot and/or advanced navigation systems might not be able to fulfil some manoeuvres exceeding their capabilities.

(c) Your examiner will advise you of the departure and destination airports prior to the exam. You will have to plan and check the route yourself. As a general rule, you will be requested to fly between two airports at least 100 nm apart under instrument flight rules. Usually, departing and arrival airports will be located in 2 distinct neighbouring countries. The flight will include a standard instrument departure (SID) and arrival (STAR), a precision approach, at least 2 non-precision approaches (VOR, NDB or localizer only), several holdings and a circle-to-land procedure.

(d) You will be expected to find the necessary IFR charts yourself (check your [country's AIS](#) for online chart availability). If you have difficulties doing so, contact your examiner prior to the exam. In all cases, you may have to coordinate with the examiner so as to determinate which charts will be needed.

(e) Current departing/arrival weather conditions must be above applicable minima for the flight to take place. When starting the exam, you will have to decide if the current weather is acceptable for the intended IFR flight.

(f) You should connect to IVAO at your departure airfield using the following callsign: EXMxxxx where xxxx are the last 4 digits of the exam number. Your radiotelephony callsign will be "Exam ####". Your exam number can be found on the [My details] page under the Training tab.

(g) The examiner will usually be connected as an observer and will "simulate" an active ATC position although he may also connect as an active ATC or collaborate with another ATC in charge of the airspace where the exam takes place. In all cases, comply with all instructions normally.

4.3.2 IFR flight

The test flight will mainly assess the following:

- IFR flight plan; we encourage you to carefully learn how to correctly fill a flight plan by consulting [this Academy chapter](#), and to check its validity,
- IFR departure procedure (as published or prescribed by examiner),
- En route IFR navigation (accuracy of navigation based on radionavigation aids); during the flight, your examiner may ask you to make some exercises (turns to specified headings, climbs/descents to assigned altitude, crossing a defined fix at a specified altitude, intercepting and tracking a navaid radial),
- Standard IFR arrival procedure via a prescribed or published route,
- Hold over a fix (using the adequate entry procedure),

- ILS precision approach, including initial approach segment (as published, including any required procedure turn, racetrack inversion or DME arc or as required by examiner),
- VOR, NDB or localizer only non precision approach,
- Missed approach,
- Circling approach.

5. Evaluation and marking method

The examiner will score **all** required tasks separately (including both theoretical questions and practical exercises) on a dedicated marking sheet.

Each score will reflect the accuracy and depth of your knowledge and your ability to accurately perform the required tasks.

Certain minimum requirements are expected for some tasks: IFR theoretical knowledge, mastering of English phraseology, accuracy/validity of the flight plan, proper execution of the precision approach and holding patterns, compliance with all clearances. Failure to perform these tasks at the specified standard will result in the exam being marked as fail regardless of your overall performance.

Note also that *some special situations will result in an automatic exam failure*: not having the necessary charts for the exam, entering the runway, taking-off, landing or initiating approach without clearance, descending below minimum safety altitudes at any time, crashing due to terrain collision or aircraft overstress.

Your examiner will calculate your final score. The maximum score is 100 points. The pass mark is 75/100. In all cases, your examiner will give you a detailed break-up of your score during the debriefing so you can identify your errors and correct them.

APPENDIX I

Training materials and online resources

1. [Academy – Bare basics](#) (including Guidelines for Pilots notes when appropriate)
 - Flight plan (filing an IFR flight plan)
 - Altimeter Settings
 - Cruising Levels
 - Squawk codes & Transponders
2. [Academy - Approach](#)
 - Approach procedures
 - SID – Standard Instrument Departure
 - STAR – Standard Instrument Arrival
 - Holdings
 - ILS cat I & II – Instrument Landing System category I-II
 - Circling approach
 - Performances at Approach
3. [Academy – More information](#)
 - METAR – (Short) TAF: Aviation Weather Reports
 - Speed
4. [Academy – En-route](#)
 - Transition level and altitude
 - Aircraft performance
5. [Academy – Miscellaneous](#)
 - Navigational charts explained
 - Navigational instruments
6. Other online sources
 - [Missed approach](#) (IVAO Belgium)
 - [Microsoft Flight Simulator Handbook](#) (Part II – Instrument Flight)
 - [Pilot's Handbook of Aeronautical Knowledge](#) (especially [Aircraft systems](#), [Flight instruments](#), [Aircraft performance](#) and [Navigation](#))
 - [Instrument Flying Handbook](#) (especially [Flight instruments](#), [Airplane attitude instrument flying](#), [Navigation systems](#), [IFR flight](#) –see TOC for other links)
 - [Instrument Procedures Handbook](#)
7. Online weather resources
 - [European aviation weather center](#)
 - [Jeppesen weather charts](#)
 - [NOAA Aviation weather service](#)
 - [IVAO weather maps](#)

8. Charts and flight plan resources

- [State AIS and aeronautical information links](#)
- [Eurocontrol CFMU flight plan validator](#) (IFPUV structured editor)
- [FAA National Aeronautical Charting Office](#) (US)

Note: The Training department of your division may also publish some recommended material on its web site (either in English or in your own language) and will include the necessary links in the localized version of this document.