



International Virtual Aviation Organisation

HQ Pilots Group

Version 1.0.6
(11-Dec-2011)

*Training Director / assistant director: Michael Hansohm, Hervé Sors
HQ Pilots group director /deputy director: Zoltan Gyenge, Dionysis
Moustakis*

International Virtual Aviation Organisation Training Department, 2011

| *Note:* Left vertical revision marks indicate changes from previous
version

1) The HQ Pilots group

The IVAO Headquarters Pilots Group is a group of skilled pilots, which task is, to provide enough traffic or to commence difficult operations at exams. The examiners will takeover the position of the "director" who will conduct our pilots during the exam. The main benefit is, that examiners can blindly trust our pilots. A short message is enough for our pilots, to execute the most difficult manoeuvres. They are trained to fly every approach and every departure and simulate efficiently emergency situations. You can request us for any IVAO ATC exam (ADC, APC, ACC). As a sign of membership, pilots could also get the Pilot exam badge, after passing our initial tests, the trial period and the voting of at least 2 staff members. Once the pilot leaved our group again, the badge will be removed.

Becoming an IVAO HQ pilot is anything but an easy job, there are plenty of tasks required, and we allow very few mistakes. The ability to read charts quickly and efficiently is only a small part of our objective. Our main priority is the knowledge, concentration and skill required during unexpected events, such as a rapid de-compression, bird-strike or engine failure, to name a few.

2) Application Requirements

- Have a minimum rating of Aerodrome Controller and **Senior Private Pilot**. For obvious reasons related with the nature of the responsibilities of the position, a higher pilot rating would be an asset.
- Have a fluent capability for speaking and writing in English.
- Have a clean suspension history.
- Shall be at least 18 years of age
- Have enough time to fly (minimum of 2-4 hours per week)
- Applicants have to accept internal rules of the HQ Pilots group
- Have to check the internal rules of the HQ Pilots group once a month for updates
- The applicants need to have a deep knowledge of, at the minimum, one jet and one piston engine powered aircraft.
- The applicant must be able to communicate by voice during exams
- A high number of staff positions are disadvantages

2.1) Interview and theoretical part

Prior to the interview, our staff will check your account, to see, if you match our requirements. In the initial interview, one of our HQ Pilots testers will ask you a few questions, to find out more about your attitude, what you expect from this group and to check your English capability. This interview and the theoretical test are on cc.ts.iviao.aero server. During the theoretical test, the examiner will be checking your English proficiency.

**Max points 12 point for English. Less than 6/12 is an exam failure (≤ 51/100)
If you failed the English part, you can't apply the practical exam!**

During the test, we will ask you several questions about charts procedures and aircraft operation. Such as for example:

- What is the frequency and type of a specific radio-navigation station,
- Explain a complete approach/departure route (including every detail depicted on the charts)
- What is the altitude restriction at a specific point
- On what page do you find information about the VOR DME approach runway X and explain how to execute it.
- What are important reporting points for VFR flights into a TMA
- Circling approach minimums
- Holding procedures and clearance limits
- Emergency and missed approach execution
- Explain airspace classifications.
- 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, en-route charts reading
- Chart reading, VFR procedures: VFR charts: mandatory entry points into TIZ, airspace requirements for VFR flights, traffic patterns, VFR minima's
- 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.

All charts will be selected by examiner.

Of course, the questions may vary, depending on the chosen airport. The airport will be selected by the HQ Pilot examiner. (Trainings material see in Appendix)

No any theoretical knowledge of several parts is an exam failure (≤ 51/100)

Duration: Approximately 60 minutes

2.2) Practical Test – Skill test

After you passed the theoretical test, you will be invited to the practical part. A date will be appointed for this by the practical HQ Pilots examiner. During the test, your ability to fly certain manoeuvres, departure and arrival procedures will be checked.

The skill has two parts at same time:

1. VFR flight between two closest airports – selected by examiner-

General requirements:

- (a) A light (L) single engine propeller aircraft (such as a Cessna 172, 182, Piper PA28, Mooney M20 or similar) must be used for the flight test. Basic NAV and COM equipment is enough to fulfil exam requirements. Make sure you choose an aircraft you know well and are comfortable with.
- (b) Use of the autopilot and GPS system are permitted on the exam. However, be aware that autopilot might not be able to fulfil required manoeuvres exceeding the autopilot capabilities, resulting in exam failure. You are free to use the autopilot at your own risk.
- (c) Your examiner will advise you of the departure and destination airports prior to the exam but you will have to plan the route yourself. As a general rule, you will be requested to fly between two airports at least 20 nm apart under visual flight rules. In case the nearest airport is too far from the departing field, a local flight may be prescribed.
- (d) You will be expected to find the necessary VFR 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) VMC conditions must exist for the flight to be performed. If necessary, the examiner will postpone or relocate the exam or even can accept simulated clear weather conditions. When starting the exam, you will have to decide if the current weather is acceptable for the intended VFR flight. FS daytime is accepted.
- (f) 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.

Connection at the departing airport,

- VFR flight plan; we encourage you to carefully learn how to correctly fill a flight plan unless you are disconnected during the exam, we request that you send your flight plan only once at the beginning of the flight and on request of the examiner,
- Ground movements from gate/parking area to assigned runway,
- Take off technique,
- VFR departure,
- En-route VFR navigation (accuracy of navigation based on visual references and radio navigation aids, if any); during the flight, your examiner may ask you to make some exercises (turns to specified headings, climbs/descents to assigned altitude, crosses a defined fix at a specified altitude, flies direct to a VOR and a NDB, makes a 360),
- VFR arrival (entry points, pattern integration),
- Traffic patterns,
- Touch and go or go around followed by a 2nd pattern,
- Full stop landing and taxi to apron/gate,
- Phraseology (use of correct phraseology, prompt and accurate read back, minimum proficiency in spoken English),

**VFR part of exam is max 20/100 points. Less than 10/20 points VFR part automatically FAILED –
If you fail the VFR part, you can't apply the IFR part of exam, so exam is FAILED.**

Re-apply of exam is after 3 months from failed datum.

2. IFR flight between two airports – selected by examiner-

Skills test

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

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) 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.

(e) 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.

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, and to check its validity; unless you are disconnected during the exam, we request that you send your flight plan only once at the beginning of the flight and on request of the examiner,
- IFR departure procedure (as published or prescribed by examiner),
- En route IFR navigation (accuracy of navigation based on radio navigation 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.

IFR part of exam is max 80/100 points. Less than 65/80 points IFR part automatically FAILED –

If you fail the IFR part, your exam is FAILED, even you finished the VFR part success.

The sum score of VFR + IFR = 100 points. Exam is success if you reach 75 points or more!

Re-apply of exam is after 3 months from failed datum.




Some special situations will result in an automatic exam failure and the score will be at the most 49/100:

- Not having the necessary charts for the exam (when provided by IVAO, your examiner or freely available on the Internet),
- Entering the runway, taking-off or landing without clearance,
- Initiating approach without clearance,
- Descending below minimum safety altitudes at any time,
- Crashing due to terrain collision or aircraft overstress.

However, in such cases, and unless you experienced a crash, the exam will be continued until all points are covered.

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.

If you are the member of the HQ pilot group, you can become badges, after the count of exams.

	Bronze Pilot exam badge - Issued to any pilot who has participated in 25 controller exam, in at least 7 several Divisions
	Silver Pilot exam badge - Issued to any pilot who has participated in 50 controller exam, in at least 15 several Divisions
	Gold Pilot exam badge - Issued to any pilot who has participated in 100 controller exam, in at least 25 several Divisions

If you want to join us, please send an email, to

zoltan.gyenge@ivao.aero and dionysis.moustakis@ivao.aero

with your details:

VID:

Division:

Pilot rating:

ATC rating:

Motivation, why you will join us

APPENDIX I

Training materials

1. [Academy – Bare basics](#) (including Guidelines for Pilots notes if appropriate)
 - Connecting instructions
 - Air Traffic Control Units and Positions
 - Airspace structure
 - Airspace classification
 - ATIS – Automatic Terminal Information Service
 - Clearance and instructions
 - Flight rules
 - Flight plan (filing a VFR flight plan)
 - Communications – Phraseology basic words
 - Communications – Alphabet & Call Signs
 - Communications - Numbers
 - Communications - Read Back
 - Communications - UNICOM
 - Altimeter Settings
 - Cruising Levels
 - Squawk codes & Transponders
 - Right of way

 2. [Academy – On and around the airfield](#)
 - VFR Flight (General points)
 - VFR Flight – Aerodrome Traffic Circuit
 - VFR Flight – Special VFR Flight

 3. [Academy – More information](#)
 - METAR – (Short) TAF: Aviation Weather Reports
 - Speed
 - Self Announcing Procedure

 4. Other online sources
 - [Phraseology common mistakes](#) (IVAO Belgium)
 - [VFR circuit](#) (IVAO Belgium)
 - [Microsoft Flight Simulator Handbook](#) (Part I – Visual Flight)
 - [Pilot's Handbook of Aeronautical](#)

 5. Online weather resources
 - [European aviation weather center](#)
 - [Jeppesen weather charts](#)
 - [NOAA Aviation weather service](#)
 - [IVAO weather maps](#)

 6. Charts
 - [EUROCONTROL](#)
 - [SKYVECTOR](#)

 7. [Aircrafts manuals and performance details](#)
-