



# SENIOR CONTROLLER (SEC) EXAM BRIEFING GUIDE AND EXAM STANDARDS

## 1. Introduction

This briefing is created to help candidates understand the purpose of this exam.

## 2. Requirements

Before applying for this exam, you shall meet the following requirements:

1. Be at least 18 years old without exception
2. Have your area control centre rating (ACC) since more than one year at least
3. Have your senior private pilot rating
4. Have at least 1000 hours of logged time on IVAN as an ATC (pilot hours are not taken into account)
5. Have a clean suspension history during the last year

## 3. Applying for the exam

The theoretical and practical exam can be requested by directly accessing your [exam status page](#).

The exam has three parts which shall be successfully validated in this order:

1. Theoretical exam: complete successfully the SEC online test
2. Practical exam 1: consists of answering theoretical questions asked by examiner and check the knowledge of examinee about local procedures and LoA. English proficiency will be checked.
3. Practical exam 2: check air traffic controller performance logged as an approach (APP) controller in a TMA which has at least one IFR compatible airport.

Requests for practical exams are only possible for members of active divisions. Members of inactive divisions will have to change to an active division in order to get higher ratings (R&R 4.6.2.1)

Unlike the theoretical exam, which is automated and centralised, an examiner from the HQ Training Staff and additionally one member of the user's division training department as co-examiner will conduct the exam. (The co-examiner will ask questions about the LoAs and local procedures).

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The examiners must hold the Senior ATC Instructor (SAI) rating. The IVAO HQ Training department has the right to evaluate and validate the exams. In case of any question, do not hesitate to contact the HQ Training department.

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

We recommend you to do a practical training in your division prior to applying for this exam.

## 4. Theoretical Senior Controller Exam

All theoretical exams consist of 20 randomly selected multiple-choice questions (MCQ).

- Each question includes 3 to 5 proposed answers among which only one is correct.
- You have a maximum of 45 minutes to fill in the examination paper, and should you exceed this limit, the exam will be automatically recorded as failed (default failed score = 0/100).
- These MCQ exams are automatically corrected (each question will be marked 0 for a wrong answer or 5 for a right answer).
- The pass-mark for the exam is 75/100 (corresponding to at least 15 correct answers).

The theoretical questions are mainly extracted from our training documentation and software manual:

<https://www.iviao.aero/training/documentation/index.php?section=asx>

<https://www.iviao.aero/training/documentation/index.php?section=adc>

<https://www.iviao.aero/training/documentation/index.php?section=apc>

<https://www.iviao.aero/training/documentation/index.php?section=acc>

Other material can be necessary for this level:

<http://dcaa.trafikstyrelsen.dk:8000/icaodocs/>

All questions are based on ICAO/JAR OPS Rules and Regulations if not stated otherwise in the question.

Note that you can submit your answers as often as you want during the 45 minutes of the exam. Only the last submission will be taken into account. We greatly recommend you submit your examination paper on a regular basis in order to avoid to be marked 0 if you are disconnected or if you exceed the 45 minutes limit.

After your successful theoretical exam, you can apply for the practical part of the exam without delay.

Warning: Our system does not allow the resetting of theoretical exams, as in this case the same exam will appear again. Consequently, the Training department will always refuse to reset unfilled or timed out exams. In order to shorten the time for applying again, members should save their answers on a regular basis so as to avoid the exam being marked 0 if a disconnection or a time out occurs.

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## 5. Practical Senior Controller Exam Part 1

The SEC exam is a series of tasks to appreciate your IVAO network knowledge, your theoretical air traffic control knowledge, your knowledge of local procedures and LoA, and English proficiency.

After your successful theoretical exam, you can apply for Part 1 of the SEC exam. In case of success to Part 1, you can apply for Part 2. These 2 parts will be conducted in sequence on 2 consecutive sessions.

Note that English phraseology shall be used during the skills test and optionally for the briefing and debriefing.

Voice communication is an unconditional requirement for the interview, assessments of theoretical knowledge and spoken English proficiency (Part 1) and flight briefing (Part 2). Therefore, we cannot accept a “text-text” or “text-voice” method due to the incompatibilities with these tasks.

Note that these are our minimum standards. Your local division may have set additional requirements that should be published on its web site.

### 5.1. Training material

The training material is available on the IVAO website following these links below:

<https://www.ivoa.aero/training/documentation/index.php?section=asx>

<https://www.ivoa.aero/training/documentation/index.php?section=adc>

<https://www.ivoa.aero/training/documentation/index.php?section=apc>

<https://www.ivoa.aero/training/documentation/index.php?section=acc>

<https://www.ivoa.aero/training/documentation/index.php?section=sec>

Other material can be necessary for this level:

<http://dcaa.trafikstyrelsen.dk:8000/icaodocs/>

### 5.2. Theoretical knowledge and English proficiency evaluation

The examinee will receive an email with a linked website, providing him/her 20 exam questions. He/she will have 60 minutes to answer the questions (writing in his/her own words is mandatory). After the examinee has submitted the questionnaire, the examiners will evaluate the answers together with the examinee. The examiners will also ask additional questions to check the examinee’s English proficiency and his/her knowledge of local procedures and LoAs.

During the practical exam, the examiner shall question you about theoretical knowledge:

- Decode METAR / TAF including knowledge of RVR and weather phenomena
- Perfect knowledge of separation minimums, airspace classes and types
- Perfect knowledge of examinee’s airspace
- Good knowledge of local agreements (LoA)
- Knowledge of VFR and IFR rules and cruise levels associated including semi-circular rules
- Knowledge of how to handle RVSM issues when required
- Knowledge of ICAO/FAA/CAA rules (depending on examinee’s division)

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## 6. Practical Senior Controller Exam Part 2

The examinee will have to log in as APP (Approach) controller in a TMA which has at least one IFR compatible airport. Tower and ACC Controller are necessary and must be staffed. A professional traffic management is expected from examinee during the entire exam according to the LoAs and local procedures, including the handling of unexpected situations.

### 6.1. IVAO software, connection and communication modes

You shall use one of any IVAO approved ATC client for the exam.

The examiner will check your ability to correctly use the main functions of the software, mainly:

- establish a text and/or voice communication with pilots,
- fill out a correct ATIS,
- be able to transmit by text on your ATC frequency and privately, and make conference in chat tab
- retrieve a distant station ATIS, METAR and TAF

Voice communication is an unconditional requirement for the interview, assessments of theoretical knowledge and spoken English proficiency (Part 1) and flight briefing (Part 2). Therefore, we cannot accept a “text-text” or “text-voice” method due to the incompatibilities with these tasks.

You must connect to the network using the requested position only using ICAO\_POS format.

The examiner should connect to the network using \_X\_ suffix to the examined position.

During active practical exams no Emergency (MAYDAY) or Urgency (PAN) situations may be initiated by any participating pilot unless specifically requested by the examiner.

Declaring any unrequested Emergency, PAN or squawking 7700 or 7600 will lead to a forced disconnection by the examiner or any supervisor.

Note that English phraseology shall be used during the skills test and optionally for the briefing and debriefing.

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## 6.2. General requirements

To evaluate a SEC exam, the minimum traffic required is as follows:

1. The examinee has to log in as approach controller (APP) in a TMA. The airport has to be approved by the examiners before the exam.
2. Tower and ACC Controller shall be staffed during the exam. One of the examiners will connect as X\_APP during the exam. Both positions should be staffed by experienced controllers
3. Exams on the adjacent positions (TWR, ACC) are not allowed during the SEC exam.
4. There must be at least one airport which provides IFR procedures under control of the examinee (no approach and departure position permitted. At this airport only a tower controller is permitted)
5. The airport, where the exam will take place must have IFR procedures available.
6. Using IVAO approved software is required.
7. The examinee will be expected to find the necessary charts himself. However, in countries where charts are not easily and freely available, it is the responsibility of the examiner/division to provide the necessary material and/or links so that both examiner and examinee can work on the same charts.
8. To evaluate an SEC exam, the minimum traffic required is as follows:
  - a. A minimum of 15 aircraft simultaneously per hour
  - b. A minimum of VFR traffic
  - c. A minimum of 1 emergency
9. The participation of the HQ Pilot group is mandatory for this exam
10. If the weather is not suitable for VFR traffic the examinee may apply Special VFR rules. The examiner can ask a pilot to fly in VMC. The examinee has to be informed about that.

Note: Emergencies and/or radio-communication failures during the Exam will ONLY be done on request of the examiner

For the exam, the examiner will usually be connected as ICAO\_X\_APP.

## 6.3. Practical performance

1. Observance of MRVA, MSA, MEA during radar vectoring, procedural or direct routes
2. Provide adequate radar vectors and/or procedural control (in function of the airspace)
3. Expedite and maintain an orderly flow of air traffic. The examinee has to show proper separation during high traffic load.
4. Perform correct handoffs to the next unit (TWR / APP / CTR) including correct flight strip marking
5. Suitable and sufficient coordination with adjacent ATC units in all necessary situations
6. Proper handling miscellaneous emergency situations
7. Have and maintain all the time a good overview of the radar situation
8. Correct phraseology and English proficiency

There is no maximum traffic number allowed. However, if the traffic situation requires, the examinee must be able to restrict the traffic flow into the TMA. This includes restriction of departing traffic in coordination with the adjacent ATC units.

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## 6.4. Debriefing

The examinee must be able to give a proper feedback about his/her work. Main points are the interpretation and evaluation of the exam, particularly of weaknesses and strengths of the examinee.

## 7. Evaluation and marking method

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

Each score will reflect the exactness and range of your knowledge (for theoretical data) and your ability to accurately execute the exercises (and your performance for doing so).

The maximum score is 100 points. The pass mark is 75/100. In all cases, your examiner will give you the detailed results during the debriefing, so as you can identify your errors and correct them in case the exam is failed.

If the examinee fails one of the practical parts, he/she will be able to re-apply for the exam after a 6 month delay.

Some special situations may result in an automatic exam failure (maximum score = 51/100):

- Separation error (Airprox, separation below the minimum requested, risk of collision)
- Vectoring below MRVA/MSA
- ATC Clearance which implies aircraft manoeuvres below MRVA/MSA
- Any automatic failures listed in ADC/APC briefing guide if applicable

NOTE: The score for those exams will be 51/100 or less depending on the total result of the exam. This does not mean that the exam is not continued until finished

In those airports where MRVA is not available (not published in real life) the MSA should be considered as the reference for radar vectoring. As the MSA could be different depending on the chosen approach plate, both examiner and examinee should agree which MSA is going to be used during the exam. We know that the MSA is not a real parameter to be used on radar vectoring but it is the only value we consider to be feasible for virtual purposes.

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An exam is considered as failed and the practical part will stop immediately or will not be performed if:

- Examinee has no charts (score shall be at or below 49/100)
- Examinee has low theoretical knowledge (score shall be at or below 49/100)
- Violation against IVAO Rules and Regulation (score shall be 1/100 or 0/100 depending of examiner)
- Examinee does not turn up for the exam and a valid reason is not given within 48 hours. This will cause the exam to be considered as failed (score shall be 1/100 or 0/100 depending of examiner)
- In case you decide to stop the exam at any time after it has begun, your exam will be marked 0/100.
- In case of any provable cheating during a practical exam, regardless if during the theoretical or the practical part, the result will be 0/100 and a blocking of 6 months for exams will be appointed to the examinee.

If the examinee fails to arrive for the exam at the time organised, the examiner should wait for 15 minutes. After that period, the examiner can log off the network. The examinee then has 48 hours to provide a valid reason for the failure to attend by email. If no email is received in time the exam will be marked as failed.

Should a PC crash occur which is out of the applicant's control, the exam will have to start again or will be delayed to take place on another day, the decision being up to the examiner.

## 8. Validation of the exam

After evaluation, 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.

The validation process needs a validation delay estimated from one day minimum to an average maximum of one week.

If your exam is validated as a success your rating will be updated at 1200z the following day.

The SEC rating will be monitored continuously by the HQ Training department. After getting the new rating, the examinee must log in a minimum of 100 hours in each of the following years. Only ATC hours will be counted. The staff and pilot hours are excluded.

If the examinee refuses to connect a minimum of 100 ATC hours each year after the exam, the rating will be removed by TD or TAD and the examinee will be able to re-apply for the exam after 6 months

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