

# **EASA Guidelines – COVID-19**

## **Guidance for allowing Virtual Classroom Instruction and** **Distance Learning**

in relation to the SARS-CoV-2 pandemic

Issue no: 01

Issue date: 29/05/2020

## Contents

1.1 Scope .....	2
2 COVID-19 shift to more distance learning and virtual classroom environment .....	3
2.1 Distance Learning .....	3
2.2 Virtual classroom instruction.....	4
2.2.1 Virtual classroom instruction – level of communication.....	4
2.2.2 Virtual classroom instruction – appropriate equipment and tool .....	5
2.2.3 Virtual classroom instruction – instructor.....	5
2.2.4 Virtual classroom instruction – student pilot.....	6
2.2.5 Virtual classroom instruction – Acceptable level of academic effectiveness.....	6
2.2.6 Training system feedback loop.....	7

## 1 Purpose of these guidelines

The purpose of this document is to provide guidelines to be considered by competent authorities (CAs) when allowing virtual classroom instruction during the COVID-19 outbreak.

### 1.1 Scope

- LAPL, PPL, SPL, BPL, CPL, ATPL, modular CPL, ATPL integrated (up to the time allowed by ORA.ATO.305 and AMC1 ORA.ATO.305)
- Class and type rating courses (AMC2 ORA.ATO.125, AMC3 ORA.ATO.125)
- MCC Airplane system training (GM1 FCL.735A) and airline oriented training
- 100 KSA (“may include in suitable portions, classroom,.., e-learning, ...). Most can have virtual equivalents, such as:
  - A classroom can be physical or virtual;
  - Tutorials can be also e-tutorials;
  - CBT can be also online available outside of the training organisation;
  - Demonstrations, including those supported by demonstration equipment, virtual reality technology can be applied;
  - Exercises carried out as groups or individuals and based on pre-flight and en-route planning, communications, presentations, and projects may be online in a small virtual classroom;
  - The directed study including workbook exercises or assignments is excellent are for online Learning Management System use;
  - Aerodrome or aviation industry field trips, the only instructor can present at industry field, students can have an online session (e.g. using Open Broadcaster Software like some of our training organisation plan to do) with the possibility of asking questions;
  - Lessons can be in a virtual classroom again;
  - Distance learning both methods synchronous and asynchronous are already in common use.

## 2 COVID-19 shift to more distance learning and virtual classroom environment

Due to the COVID-19 outbreak European training organisations are in need to shift more of their theoretical knowledge instruction footprint to a remote/virtual environment to enable continuity of training of their student pilots. CAs should facilitate this shift as much as possible. There are two aspects of remote/virtual environment applicable to training that require careful consideration:

- Distance learning;
- Substitute or complement actual classroom instruction by virtual classroom instruction.

When deciding to allow distance learning or virtual classroom instruction, CAs should require training organisations to perform a risk assessment that, as a minimum, carefully evaluates whether:

- Student pilots and theoretical knowledge instructors will have access to appropriate equipment to support remote learning/instruction or the shift;
- the teaching style remain still effective in achieving the training objectives;
- the remote environment able to reach each training objective (not all will be achievable, such as those related to OSD).

The training organisation should reflect the agreed approach with a (temporary) update of the training manual. To shift from the "real" class to the "virtual" class is a change that must be managed according to the change management procedure described in the manuals of a training organisation itself. ORA.GEN.130 and related AMC and GM do not clarify whether the change from the real class to the virtual class is a change requiring prior approval or not. It depends however on the change management procedure approved by the CA to the training organisations.

### 2.1 Distance Learning

Distance learning is not new and is covered by the following provisions in the Aircrew Regulation;

- Part-ORA of the Aircrew Regulation, Section III – Additional requirements for training organisations providing specific types of training, already foresees in a special chapter for the distance learning course: Chapter 1 – Distance learning course.
- ORA.ATO.300 General states in which cases the training organisation may be approved to conduct modular course programmes using distance learning.
- AMC to Appendix 3 in Part-FCL in relation to CPL and ATPL training courses allows only a limited form of remote learning stating 'suitable proportions of...e-learning', including for the ATP integrated course. This limitation makes sense as an integrated course, in contrast to modular course, is intended to ensure that 'theoretical knowledge and flight training in an aircraft or an FSTD will be integrated so that as the flying training exercises are carried out students will be able to apply the knowledge gained from the associated theoretical knowledge instruction and flight training'.

## 2.2 Virtual classroom instruction

Virtual classroom training is also not new and is covered by the following provisions;

- ORA.ATO.305 Classroom instruction gives criteria regarding the classroom instruction. In point (b) and the AMC to point (b) states that classroom instruction delivered by an instructor to a student may include videoconferencing appropriate to the task if the necessary level of communication is ensured and appropriate equipment is available.

In the context of the COVID-19 outbreak and the related restrictions mentioned in Chapter 2 above, virtual classroom training as referred to in AMC1 ORA.ATO.305(b) should generally be considered equal to actual (physical) classroom training in the context of classroom training as required for both modular and integrated courses. To that end, these guidelines provide further criteria for the competent authorities to assess and accept arrangements for virtual classroom instruction.

There are no practical requirements for IT infrastructure although many training organisations run their business in the paperless way with various classes of IT tools forming more or less integrated IT system (VLE- Virtual Learning Environment, LMS – Learning Management Systems, Virtual Classrooms, Video Conferencing, cloud-based e-learning, progress tests from outsourced sites, E-books, twitter, youtube or other video channels, etc.).

These requirements could include: personal data protection and security, change management, continuity, integrity, audits, user authentication privileges, logging of overall integrated system activity, etc.

We can find only some backup guidance in AMC1.ORA.GEN.220(b) and only for record-keeping.

These requirements should be a crucial part of the CMM system.

The actual classroom instruction delivered by an instructor to a student pilot may be replaced by virtual classroom instruction, such as videoconferencing, if an acceptable level of communication and interaction is ensured with appropriate equipment and tools. The training organisation virtual classroom instruction should provide real-time instructor-led learning where students can interact, communicate, view and discuss presentations. The training organisation should also ensure that students make satisfactory academic progress and to maintain a reliable records for the completion of training.

### 2.2.1 Virtual classroom instruction – level of communication

An acceptable level of communication should meet all the following criteria:

1. Live interactive instructor-led sessions in an online learning environment within a shared online space;
2. Maintain continuously an active and simultaneously exchange between instructor and student(s): dynamic and two-way flow of communication without delay;

3. Able to share relevant training material as specified for the appropriate lesson, unit or course in the training manual;
4. Maintain a “video and audio” interactive communication by taking into account non-verbal communication cues (tone of voice, facial expression ...);
5. Ensure an appropriate level of student’s attentiveness by providing guidance to the students such as quiet room without nuisances.
6. Ensure a policy for the use of the virtual classroom instructions such as “raise your hand, question, ...”
7. Monitor what the instructor’s screen displays;
8. Synchronous discussions with other students in the virtual classroom;
9. Ensure that students have tools to present learning content in different formats, as well as to implement collaborative and individual activities. The instructor should have the particularly important role of the moderator who guides the leaning process and supports group activities and discussions
10. Synchronous virtual classroom instruction require student-centred instruction in which the students and the instructor interact equally – active participation, collaborative work, and communication are encouraged in this type of classroom. The instructor creates opportunities for both independent learning and learning from one another, and guides the students in developing and practicing the skills they need. This increases the motivation level – the tu creates video lectures and self-directed activities, which the learners cover at their own pace of the students, as well as their interest in the learning activities.

#### 2.2.2 Virtual classroom instruction – appropriate equipment and tool

##### 1. Equipment

The equipment needed for the virtual classroom instruction should ensure the acceptable level of communication without technical interruption during the virtual classroom instruction. The training organisation should define the screen characteristic in order to have a high enough resolution to watch videos, or read computer files regarding the available training materials.

##### 2. Tool

The tool should ensure the students identification (visual) and, a continuous assessment of the level of communication with all students. The tool should permit to the instructor to achieve similar training objectives and quality of instruction compared to instruction within actual classroom instruction as defined by the training organisation.

#### 2.2.3 Virtual classroom instruction – instructor

The training organisation should ensure that the instructor delivering virtual classroom instruction:

1. Has received appropriate training covering at least learning style, teaching method associated to virtual classroom instruction, such as videoconferencing, and a familiarisation to the used virtual classroom instruction system,
2. Has demonstrated his ability to manages time, training media and equipment and tool to ensure that training objectives are met,
3. Performs formative assessment only as the summative assessments are excluded.

#### 2.2.4 Virtual classroom instruction – student pilot

1. Instruction in a synchronous virtual classroom can only be successful with the active participation and engagement of the students. This creates a positive learning environment and helps the students achieve the expected outcomes.
2. During the virtual classroom instruction there should be opportunities for frequent interaction between student and instructor, student and other students, and student and content.
3. Over the course of the virtual classroom instruction, the students should be encouraged by the instructor to participate every 3-5 minutes. This can be achieved by a variety of activities such as brainstorming, small group discussion, collaborative and individual tasks, Q&A sessions, hands-on experience, etc.

#### 2.2.5 Virtual classroom instruction – Acceptable level of academic effectiveness

1. Maximum students and training times

Class numbers in ground subjects involving virtual classroom instruction should ideally not exceed a maximum of 12 students, unless based on the risk assessment described in paragraph 2, the training organisation demonstrates that a higher number of students would not affect the effectiveness of the training and its objectives by accepting more students. Also the maximum number of students should be established considering the capability of technology of the tool to maintain an acceptable level of communication.

The amount of time spent in effective virtual classroom instruction should not exceed 5 hours per day. A break of at least 20 minutes should be planned for every hour of virtual classroom instruction.

2. Attendance records

The instructor delivering the virtual classroom instruction should be responsible for the attendance records of the students by ensuring the students are in the virtual classroom instruction with the appropriate level of communication during all the virtual classroom instruction.

3. Student progress

Non-attendance in case of interruption or loss of level of communication should be managed in accordance with the “non-attendance” policy as in an actual classroom instruction.

### 2.2.6 Training system feedback loop

The training organisation should ensure that the instructor delivering virtual classroom instruction:

1. Reports strengths and weaknesses of the training system (training environment, curriculum, assessment/evaluation) including feedback from students;
2. Suggests improvements for the training system;
3. Keeps an effective time management;
4. Makes sure that there are synchronous discussions with classmates.