

glidingschool.com - Briefing For Mentors at DLGC

Introduction

What is glidingschool.com?

The glidingschool.com website delivers gliding lessons for use online and in the Condor simulator. DLGC plans to make these lessons available in the club simulator, for members' use under supervision.

Who for, how and why?

The lessons are intended for use by pre-solo pilots, allowing them to prepare for their 'real world' lessons. The goal is that before taking a training flight, trainees will be briefed on what is expected of them, and how to achieve it. We believe that structured use of the simulator will enable trainees to progress more rapidly, with less demand placed on in-flight instructors.

The lessons are implemented in Condor's 'Flight School'. This is a standard part of the product, supplied by default with a rudimentary set of lessons. The glidingschool.com content adds substantially to this, with the aim of addressing the full BGA pre-solo curriculum. The lessons include a written briefing, a demonstration, and the entry point for an exercise to be performed by the student.

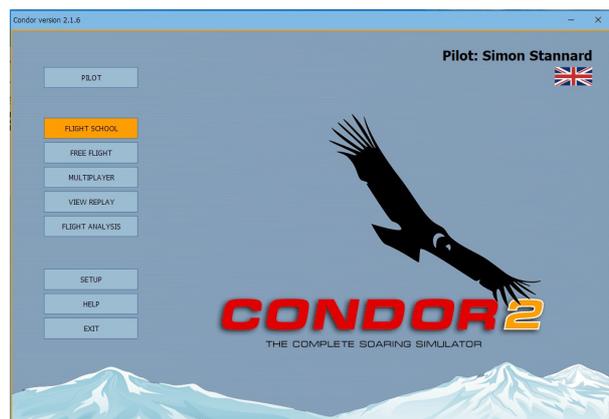
Whilst the lessons are intended to exceed the needs of a 'sim only' pilot, any 'real world' student will benefit from supervision from the earliest stages. Hence the club intends that these lessons are used under the guidance of instructors and other experienced pilots.

How to access the lessons

Once installed in Condor, the lessons are available in Flight School, accessed from the main menu in Condor. It is the second button in the menu, above Free Flight.

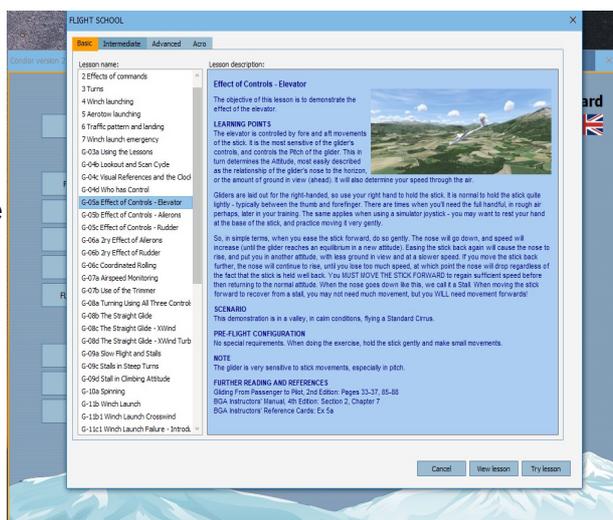
No other configuration is required.

After opening Flight School, ***move its window upward*** so that it does not entirely overly the main menu window (see next image). Otherwise, when you return to this screen, you will find it is inaccessible behind the main menu – requiring a restart of Condor to get at it.



Flight School has four tabs (top left), so lessons can be split into Basic, Intermediate, etc. By default, the glidingschool.com lessons are available in the Basic tab, as shown. They may also be installed in the Intermediate tab, in which case the Basic ones will have descriptive messages displayed during the demonstrations, whereas the Intermediate ones won't (this is installation-dependent).

Scroll down to the required lesson in the left panel, to display the lesson text in the panel on the right. **If the lesson text exceeds the window size, click in the window and scroll up and down** to see the full text (using the mouse wheel or keyboard arrow keys).



What is in a Flight School Lesson?

The lessons have three elements:

- **Description** A page of text and illustrations.
- **Demonstration** A playback of a Condor flight showing how the skill is performed.
- **Exercise** The trainee's chance to practice the skill.

The **Description** typically contains:

- **Introduction** To set the scene.
- **Learning Points** What you'd expect.
- **Scenario and Demonstration** A description of what happens in the demonstration and relevant factors such as weather.
- **Pre-Flight Configuration** As required for the exercise.
- **Performing the Exercise** Relevant advice.
- **Notes** As needed.
- **Further Reading** Notably references to Passenger to Pilot and the BGA Instructors' Manual.

The **Demonstration** is accessed by the **View Lesson** button (Middle button, bottom right hand corner). They are parts of flights previously recorded in Condor. Condor takes a moment or two to build the lesson. When it is ready, the lesson will start automatically. Some appear to sit for a few more moments before they get going. Once running, they continue unaided. **Explanatory messages** appear at the top of the screen, ideally timed to match important moments in the demonstration. The messages fade away after a few seconds. New messages will appear above any remaining on the screen, which can be a little confusing - the new message is always at the top.

- Use **[P]** to **Pause** the demonstration, for instance when too many messages appear at once and you need a moment to digest them.
- Use **[P]** to **Unpause** when you're ready to continue with the action. You can't Fast Forward or Rewind demonstrations, but you can replay them from the Flight School menu. Most demonstrations are short, so this is the best way to familiarise yourself with the messages and digest the actions.
- Use **[Esc]** to access the **Game Menu** for the option to Exit Lesson. This can be used at any time in the lesson, so if it goes on a bit, press [Esc]. You will be returned to the Flight School.

The **Exercise** is accessed by the **Try Lesson** button (Right hand button, bottom right corner). At this point, you are flying in Condor. The exercise will start in exactly the same circumstances as the demonstration, so the trainee have a fair crack at repeating the demonstration by using the skills just learnt.

Preparation and Teaching

The lessons are intended to stand on their own two feet. Your support as an instructor or experienced pilot 'mentor' will make for a much better learning experience though. For maximum benefit, familiarise yourself with the lessons so that you know what's covered, where and how. You can do this in Condor, or on the website www.glidingschool.com. If you'd like a copy of the lessons for home use, please request them via the website.

The lessons are typically much less than a page of A4, and focus on visualising the 'how', rather than exploring the theory of 'why' (which is very well covered elsewhere). The demonstrations are also brief, lasting 1-2 minutes each. However, there are approximately 40 of them. The upside is that none of the content should be new to you! Whether you leave the trainee to read the lesson text, or go through it line by line together is up to you, and it remains to be seen how this will work best. You have the opportunity to check their understanding at any point. Similarly with the demonstrations. Note, the demonstrations on the website are videos, so they can be rewound etc, while the Condor versions can only be paused. Note also that the demonstrations on the website are being developed to include animation and voice-over that isn't possible in Condor. Where these are available, the Condor 'vanilla' version is also available alongside for easy access.

The lessons are presented in a sequence, based on the Instructors' Card, that leads up to circuits and landings. In the real world, trainees tend to learn lessons in a slightly more opportunistic sequence. So it might make sense to teach the landings before launch failures. Being a simulator, you can mix and match as needed. We have also taken advantage of the simulator to enable exercises that are not normally permitted in real life, such as low level launch failures.

Self-Briefing Progress Card

The mentee will have a progress card. This allows them to track their own self-study as they read and view the lessons. The final column allows mentors to sign off the mentee's progress to a 'Sim-Solo' standard, and hence allows mentees to work with multiple mentors.

Instructor Assessment

Brian Allen has suggested that we review the mentees' performance when they're ready, or towards the beginning of the summer season. The idea is for it to be milestone and incentive to achieve a "Sim Solo" status, signed off on their Self-Briefing Progress Card.

Instructor Support

Ask for advice from instructors if you require it. Dave Martin and Brian Allen have volunteered their support for mentors, for example with keeping the lessons relevant and interesting.

Remote Instruction

Instruction and mentoring from home is effective. The mentee needs to have Condor. Zoom allows you to see exactly the same as the mentee, and to provide feedback in real-time. There is further advice on the club's members' website.

Location of Lessons and Exercises

The demonstrations and exercises take place in the default scenery (Slovakia), rather than our site at Camphill. There are several reasons for this:

- Every Condor user will have it.
- A variety of scenery is used, matched to the needs of the lesson.
- The standard UK sceneries available for home users lack a detailed version of Camphill.
- The enhanced scenery with Camphill detail is not yet generally available.
- The goal of the lessons is to teach the basic generic flying skills. "Camphill skills" are regarded as a level above, and for now can only be taught in the real world, although there are some sim exercises set up elsewhere in the club's Condor (see Flight Plans).
- Generic skills will be the foundation for all local adaptations, and will benefit all potential users.

Lessons from Sim Mentoring

- At the outset, use the correct lesson to teach the required skill. Beware finishing an exercise then practising another skill not best suited to the environment just used.
- Thereafter, it may be useful to use varying scenarios to practise the required skill, and perhaps to see its relevance.
 - For example, the lesson on Turning takes place in a valley in still air. The hills provide references to turn on a heading. However, the air is not entirely calm, and the uneven horizon may be distracting. Hence, the scenario associated with Monitoring Airspeed may be better for the early turning practise: it is high, flat and calm.
 - The Straight Glide in a Crosswind exercise is also good practise for early coordination of controls in turns, as it requires continuous small corrections to

stay on track (after making the initial turn onto the runway). The goal is to reach the end of the runway without touching down. The crosswind will generate a need for small corrections.

- The Landing in a Crosswind scenario allows you to turn downwind to reach a ridge (just!), enabling the mentee to practise gentle outward turns as you challenge them to climb 1000' for example. As they climb the ridges and hit stronger lift, they can practise steeper turns to stay in the best lift. If they have difficulty maintaining airspeed due to the lack of a horizon, suggest they monitor how the nose sweeps across the ground, perhaps against an upcoming ground feature – it will appear to move horizontally if the airspeed is steady.
- The Straight Glide in a Crosswind and Turbulence is another opportunity for ridge flying. The lift is stronger and you'll climb quickly, so it may be better as a fun exercise and a demo of mountain flying.
- Learning to use the trimmer is an essential skill for all that follows. Check it often until the mentee uses it effectively. Not using it effectively will affect the accuracy of turning, and hence circuits, launch failure recoveries, thermaling, etc. Although it follows Monitoring Airspeed, it may be a good idea to go back to Monitoring Airspeed, this time practising the use of the trimmer to settle at a nominated speed. Fly hands-off to test it.
- Turning accurately can take some time to achieve. Suggested method:
 - Shallow turns in calm conditions.
 - Turn reversals.
 - Steeper turns.
 - Turn reversals.
 - If the mentee has difficulty,
 - Demo the turns with follow-through.
 - Confirm they understand use the Trimmer.
 - Trim and fly hands-off in the turns, shallow and steep, to show that the glider is stable when trimmed.
 - Add crosswind and turbulence later.
 - Use the runway and other ground features to turn around and on to.
 - Use the ridge (Landing in a Crosswind, turn downwind (left) immediately) to practise gentle turns, moving up to steeper turns as you climb.
- There is no need to fly the exercises yourself. Mentors who are not instructors can repeat the demonstrations and use the language that is in glidingschool.com, to help the mentees. If skilled, mentors can fly the same exercise from the rear seat of the sim while the mentee follows through, allowing them to feel the amount of control movement. You might want to practise these first!
- In some exercises, the glider inexplicably dives upon starting – simply return it to the normal attitude and continue from there.
- [Q] is available to regain 1000' in some lessons.
- Keep visitors out of the sim room unless they have prior permission to join your session. Respect the mentee, who is possibly feeling some pressure.

Feedback

Finally, please provide feedback, either to me, or via the CFI or the Sim Co-ordinator, or using the Contact form on the glidingschool.com website.