

POST-SOLO

Introduction

Congratulations! You have flown your first solo. This is a memorable day and should be the first of many in your gliding career. The learning really starts here. This section provides some notes to help you progress through the next stages towards your first solo cross-country flight.

Gliders to fly

Once you have flown your first solo, one of the first things to think about is how you plan to move on to fly other gliders, especially single-seaters. The Bronze Badge requires 50 solo flights and it is unlikely that this will be possible using K13s which primarily used for dual flights. You will therefore have to convert to other types. Remember that your first flight on any new type of glider should be on aerotow because there is generally a lower work-load that when winching. Consequently one of your early goals should be to solo on aerotow as soon as possible. The options for single seater gliders are as follows.

Lasham's single seaters

There are single seaters for all abilities including Grob 102s, DG300 and Discuses. One of the advantages of flying Lasham's single seat gliders is that you can fly several types of glider and so that you can gain experience of basic gliders before decide what you like own or part-own. There is a separate document on the procedures: *Single seaters*

Crown Service

The Crown Service Gliding Club is also open to anyone with a red card. Although primarily for civil and crown servants, there is limited membership available for those in other employment. It operates a fleet of single-seater gliders and a two-seater Grob 103. See Gary Pullen for more information about membership and flying requirements. Its web site is <http://www.csgc.org.uk>

IBM Club

The IBM Gliding Club is primarily for employees of IBM (UK) Ltd. See Nicol Riggott. Its web site is: <http://www.users.zetnet.co.uk/seadrift/igc.htm>

Imperial College

If you attended Imperial College, then you should be eligible to fly IGC's gliders. Web site: <http://www.union.ic.ac.uk/rcc/gliding/> Contact Shaun Murdoch

Syndicate

If private ownership appeals, you could buy either your own glider, or a share in a syndicate. There are often syndicate shares available, sometimes advertised on the Lasham Newsgroup, or in the "Gliders for sale" book in the Brown Elephant. If joining a syndicate, it is a good idea to research it in detail to make sure that you will get as much flying as you would like. Before you buy your own glider or join a syndicate, you must discuss this with the CFI so he can advise you of the suitability of the type of glider you are considering.

More training

If you already fly with a weekend or evening group, stick with it as you will know the instructors well and they can point you in the right direction. There are many things you will need to know as you progress towards your first cross-country flight. There are some pitfalls you can avoid with the right information and, as always, if you are not sure, ask one of the instructors.

The progress sheets after the pre-solo sheet begin with the White Card. Details of what is involved are described in the section entitled *Training syllabus*. This will involve more dual flying but try also to fly solo as often as possible.

You will still need a check flight before you fly solo in white wind-sock conditions until your white card, which includes a written test, is complete. Next is the red card, which contains all of the requirements for your Bronze badge and cross-country endorsement. Once you have completed all the exercises on your red card, you will need to do the red card flying test. While you are working on your red card, you will need a check flight to fly solo on a red wind-sock day, but generally you should be able to fly solo without checks on a white wind-sock day. After your red card comes yellow, then blue as you progress through the system. By the time you gain your blue card you will have a Silver C, the BGA 100km diploma and will be able to fly cross-country without a briefing.

Courses

All 5-day courses take place at intervals during the summer. See the calendar on the Lasham web site or ask at the office for dates and prices.

Solo to Bronze

Once you have done a few solos, perhaps the right choice for you will be to do a 5-day solo to bronze. This course will cover more advanced flying techniques, and the theory you will need to pass the bronze theory test.

Bronze to silver

Once you have got your bronze, this course will teach you the basics of cross-country flying, including task planning, navigation and field landing exercises, and will help you well on your way towards your first cross-country flight. Like the solo to bronze course, these 5-day courses take place at regular intervals during the summer.

Aerobatics

The club runs 2-day beginner and advanced aerobatic courses throughout the year.

Club flying

Many people choose not to do a course, and progress towards their first cross-country by just turning up and flying whenever they can. If you do this, it will help if you can find a friendly instructor who can keep an eye on your progress. Establish contact with a few contemporaries so that you can share information and give each other support.

Compass flights

Every summer weekend and bank holidays it is possible, subject to weather conditions, to fly the cross-country task as P2 in one of the club glass 2-seaters with an experienced cross-country instructor. Add your name to the Compass list, which is to be found in the CFI's office. This is a fantastic introduction to the joys of cross-country flying. You do not even need to be a solo pilot to do this.

Bronze Badge

The BGA, and later the FAI, award a series of badges for accomplishments in gliders. You can pick up the BGA badge claim forms from the office. For full requirements see BGA Laws and Rules. The following is a summary.

Requirements:

- A minimum of 50 solo flights, or 20 solo flights and 10 hours.
- Two soaring flights of 30 minutes each from a winch launch, or 60 minutes each from aerotow.
- Flying test – if you pass your red card flying test you will have passed your bronze flying test.
- Introduction to field landings (flown in the Falke).
- Bronze written paper, with multiple choice questions on navigation, principles of flight, meteorology, radio and airmanship

Remember all the above requirements must be completed within 12 months. To log your soaring flights, your flight must be witnessed by an Official Observer or instructor. Make sure that your landing time is logged and observed, and get the observer or instructor to sign your form as soon as you can. Note the correct term is "Bronze Badge"; there is no such thing as a Bronze C.

Cross-country endorsement

The BGA Cross-Country Endorsement is part of the Red Card and can be issued once you have completed your Bronze. The requirements are:

- One one-hour soaring flight
- One two-hour soaring flight
- Navigation exercise (generally flown in the Falke)
- Field selection exercise and field landing exercise (flown in the Falke)

All the requirements must be completed within 12 months of the second two-hour soaring flight.

You will need the cross-country endorsement before you will be allowed to fly solo cross-country flights.

Silver C

The requirements to gain the Silver C are:

- A five-hour soaring flight
- A 1000m height gain
- A 50km distance flight.

You will need to complete a badge claim form for each flight, so if more than one Silver leg is achieved in a single flight, these may be claimed on a single form.

Silver Distance

Your first solo cross-country flight will be an attempt to fly Silver Distance. It is generally advised that you land at another airfield for your silver distance flight – Old Sarum and Bicester are favourites, but your tactics will depend on whether you have a logger. (It is strongly recommended that you fly with a logger.)

For all of your Silver Badge claims, there are some signatures you will need to collect, so get the claim form first so that you can check what you need. Whether or not you have a logger, you will need an official observer or any two other people to observe your landing. You should therefore take the claim form with you, so that you can get signatures immediately at your destination. One of the most difficult is often that of the tug pilot who launched you, so be sure to get the name before you launch so that you can track down the pilot after your flight.

One per cent rule (without a logger): If you are going to land at another airfield, make sure you do not fall foul of this. Namely, the height difference between release height from tow and the point of landing must be less than one per cent of the total distance flown. A lot of pilots on their first cross country flight are unaware of the 1% rule for the launch height. Several pilots each year could not claim Silver distance flights because their launch was too high.

The rule states simply that the difference in height between release and landing must not exceed 1% of the distance flown, eg 0.5 kilometre or 500 metres (1640 feet) from 50 km flown. Below are some goal airfields for Silver distance flights from Lasham giving the max permissible launch height, plus an example on how to work it out if your landing place is not listed.

Example: To Bicester with an elevation of 267 feet above sea level and 81 km from Lasham which has an elevation of 618 feet above sea level. What is the maximum launch height?

Answer: The difference in launch and landing heights must not exceed 1% of 81km= 810m x 3.281= 2,657 feet. The landing altitude is 267 feet which is 351 feet lower than Lasham altitude of 618 feet. So 2657 feet (1% distance flown) + 267 feet (Bicester altitude) = 2924 feet – 618 (Lasham altitude) = 2306 feet is the maximum launch height for Bicester

Height = height is above ground level
Altitude = is above sea level

Bicester = 81km	max height of launch is 2306 feet
Old Sarum = 53km	max launch height is 1407 feet
Keevil = 77km	max launch height is 2108 feet
The Park = 84km	max launch height is 2835 feet

One percent rule (with a logger)

If you are flying with a logger, make a written declaration before taking off. In this case, the 1% rule is different. It uses the difference in height between the lowest point in the start zone and the

highest point in the finish zone. This means it is possible to fly into the finish zone and climb up so that your height loss is less than 1% of the distance flown. This is much less stressful than releasing low on a launch and is so much preferred.

The start line is 1km long and runs perpendicularly to the declared track with its middle at the declared start. The finish line is similar.

If you do an out-and-return, you must also declare this flight before you go by filling in a declaration form with an Official Observer. One leg of the flight must exceed 50km; 25km out and return does not count. It is suggested that the outward leg is at least 50km, in case you land out on the return.

“There must be incontrovertible evidence that the flight recorder was present in the glider” for the flight. This can be done in two ways:

- An OO seals the flight recorder to the glider any time before take-off. An OO must later break the seal
- An OO witnesses the landing and has the glider under continuous observation until the flight recorder installation is checked and flight recorder is put under the watch of the OO while it is downloaded.

Annex C of the Sporting Code provides comprehensive information on the evidence provided by flight recorders. This can be downloaded.

Books to read

There are many books to guide you through your early solo flying towards the Silver C and beyond. Two good ones are:

Bronze and Beyond by John McCullagh

Written by a Lasham member, this book contains all you need to take you through the written paper for the Bronze Badge, and on to your first cross-country flights.

The Soaring Pilot's Manual by Ken Stewart.

A good guide to cross-country soaring.

You must also read the BGA's Laws & Rules which is also available from the Lasham Office.