



# BAeA 'OPEN'

## Beginners Aerobatic Events

***For 2014 – just one event:  
Little Gransden: Saturday May 31<sup>st</sup>***



### **BAeA 'OPEN' Beginners Aerobatic Events**

These are single day events specially designed to give novice aerobatic pilots an introduction to flying competition style aerobatics.

At each event, at least two aerobatic instructors and aeroplanes will be available for hire and participants are given one-to-one coaching about how to fly the BAeA Beginners sequence, with the opportunity to fly the sequence overhead the airfield twice during the day.

The aim is to encourage people to learn more about competition aerobatics, get some expert feedback about their flying and simply to enjoy the challenge and camaraderie of an aerobatic competition.

You definitely do NOT have to be an aerobatic ace to take part! The event is designed to encourage beginners to come along and find out more about flying aerobatics for fun. If you enjoy flying aerobatics and are curious about what it is like to have a go in a competition, then this is the event for you! Come and join in, have some fun and find out what it is like for you.

### **Hire an aeroplane and instructor**

The BAeA will provide aerobatic instructors and aeroplanes for hire on the day. You will be able to select from a range of typical aerobatic two seat

trainers, for example Cessna Aerobat, CAP 10, Slingsby T67, or an Extra-200L.

The instructors will all be experienced competition pilots and CAA approved flying instructors. They will be able to guide you through how to fly the figures in the aeroplane and help you to prepare to fly the sequence overhead the airfield in a suitable place for the judges to see your flight.

Hire costs are around £160 per hour, including the instructor's time (subject to confirmation on the BAeA website). Expect about 50 minutes of flying during the day.

### **Fly solo / in your own aeroplane?**

To do this you must be signed off as "safe" to fly aerobatics before the event – see the Pilot qualification section on the next page.

### **Event Format**

Each pilot will fly the BAeA power Beginners sequence twice – once in the morning and once in the afternoon. In the morning the flight will probably take place away from the aerodrome, although on return you may be able to fly the sequence overhead the airfield so it can be watched by experienced pilots and judges. Feedback about the way that each figure was flown, errors observed across figures and overall the way that the sequence was presented will be given to each pilot by the judges after the flight.

A general review of all the first series of flights will be given once all pilots have flown the sequence. All pilots will then fly the same sequence again in the afternoon but this time it will be a formal flight in front of the judges. Pilots will thus have the opportunity to incorporate the feedback from their first flight into improving the sequence at the second attempt. The pilots and judges will look for signs of improvement, and will be able to give more feedback at the end of the second flight.

### **Aeroplane Entry Qualifications**

All powered aeroplanes with aerobatic capability are eligible to enter.

## Pilot Entry Qualifications

All pilots must hold a valid Civil Aviation Authority (CAA) or equivalent pilots licence and must comply with any restrictions placed on the accompanying medical certificate.

If flying solo then a BAeA Pilot Proficiency Card endorsed at Beginners Level by a BAeA Check Pilot is required, or a suitable Log Book entry certified by a Flying Instructor authorised to give aerobatic instruction. This is necessary if you are using your own aeroplane even with a BAeA safety pilot on board.

## Help!

The BAeA website at [www.aerobatics.org.uk](http://www.aerobatics.org.uk) has a list of suitable Check Pilots and lots more help on the BAeA Buddies page - see: [www.aerobatics.org.uk](http://www.aerobatics.org.uk)

## Event Schedule

*In the Morning:*

- Arrivals and Registration – from 0830
- Briefing – 0930. Attendance is mandatory.
- Flight 1: BAeA Beginners Sequence
- Review of Flying & Debrief

*In the Afternoon:*

- Flight 2: BAeA Beginners Sequence
- Review of Flying & Close

## The Aerobatic sequence

The arrow at the top of the sequence drawing indicates the direction of the “event” wind. Most figures are flown either into wind or downwind as drawn on the sequence – the first figure, for instance is flown into wind.

When the aeroplane is flying either “into wind” or “downwind” this defines the main axis along which figures are presented to the judges. Sometimes figures are presented at right angles to the main axis on the secondary or “cross” axis.

You should fly the figures overhead the airfield in a particular place and direction that will allow the judges to see what you are doing. The most important thing to remember is that you should be presenting your figures to the judges, so you need to think about where the judges are sitting and where you should fly each figure to present it well to the judges. Too close and the judges won't be able to see the shapes of many figures,

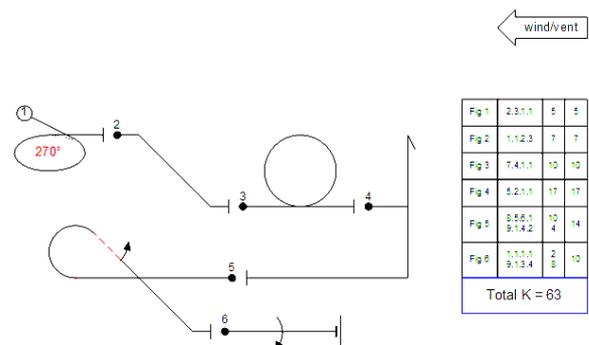
too far away and judges may not be able to see the aeroplane!

If you are practicing the sequence, pick a line feature on the ground and imagine the judges are sitting about 750m to one side of it. Try to keep aware of where the judges are as much as possible during the sequence.

When you are ready to start the sequence you should rock your wings three times to tell the judges that you are ready to begin.

## The Sequence

The power Beginners sequence consists of five basic aerobatic figures:



You can download a copy of the sequence from the BAeA web at [www.aerobatics.org.uk](http://www.aerobatics.org.uk) by going to the BAeA Known Sequences page and clicking the Power Beginners Sequence button. You can practice it ahead of the competition.

## Understanding the sequence

### Figure 1: 270° Turn

In competition the turns we fly are different to PPL turns – here we are starting on the “cross box” axis and you must fly in a straight line while rolling to between 60° and 90° of bank, then pull the aeroplane at constant height through 270° of turn while keeping the wings at the same angle of bank, and finally remove the pull exactly on the box main axis and roll the wings level into-wind.

### Figure 2: 45° Down-Line

Quite a simple figure – with the wings level, push briskly to a 45° nose-down attitude and fly down this line for perhaps 250-400ft, then pull back to level flight. This will provide sufficient entry speed for the next figure, the loop.

### **Figure 3: Loop**

It's very importantly that your loop should be round. Pull the nose smoothly up to the vertical, after which begin to gently relax the pull so that by the time you are 'over the top' you are at just over stall speed and almost 'holding the nose up'. The second half of the loop requires that you apply an increasing pull, aiming to fly off at the same height as you started.

### **Figure 4: Stall Turn**

Pull to the vertical, wings level. Draw a straight up line, and "stall turn" the aeroplane at the top of the line. You will be very slow at this stage, and throughout the turn the wings should be kept vertical. Keep the down line vertical until you need to pull to level, and you should exit flying into wind on the main axis of the performance area and in the opposite direction to the entry.

### **Figure 5: Half-Cuban 8**

Still level, upright and heading into wind fly  $\frac{3}{8}$  of a loop, making sure that you stop looping when the aeroplane is inverted on the 45° down line. Pause and hold the angle and direction of the line constant, fly a half aileron roll axially on the 45° line so that you are now the right way up and still on the same 45° line. Pause and then pull to finish upright, now heading downwind.

### **Figure 6: Aileron Roll**

This is a one-rotation aileron roll (a slow roll) flown so that the flight path of the aeroplane is level. You will need to use both rudder and elevator to keep the aeroplane flying in a straight line. After the roll you should still be flying directly along the main axis of the 'box' and into wind. That's it!

When you have finished the sequence, rock your wings three times to tell the judges that you have completed your flight - this can be left-right-left or the other way, it doesn't matter which.

### **Safety, Safety, Safety !**

Safety is absolutely critical. No pilot is allowed to fly any figures below 1500ft AGL. You should practice the sequence in your aeroplane at altitude and work out how much height you lose when flying the complete sequence. This will tell you how high you need to be when you start. Always allow yourself a little extra margin; you

must not get below 1500ft at any point in the sequence. We will notice!!

You may take a break after any figure in the sequence in case you are running out of height, you get disoriented or you're just a little unsure about what to do next. There is no penalty for taking a break – it's the safe thing to do if you think you need one. Power pilots should rock your wings three times when you take the break and again when you are ready to resume your sequence, glider pilots just get on with the job.

### **Find out more about Judging**

Flying the aeroplane through the figures is one thing, being part of the team of judges that assess each flight and gives the marks for each figure is another part of the sport that, with a little effort, you can join in with and enjoy yourself whilst making a valuable contribution. The BAeA runs a Judging School each year; it's at White Waltham Airfield on Saturday March 16th this year, and you'll find a wealth of useful information for judges and pilots alike on the BAeA web at [www.aerobatics.org.uk](http://www.aerobatics.org.uk). If you intend to compete at one of these events an understanding of what the judges are looking for is needed, so don't miss out on this key part of aerobatics.

### **Airfield Fees:**

£20 per pilot for airfield use.

### **Contact and information sources:**

#### **Little Gransden – Saturday May 31<sup>st</sup>**

Airfield: [www.yakuk.com](http://www.yakuk.com)

### **How to Enter**

You can complete your entry online from any of the BAeA 'OPEN' Beginners Days Regulations pages which are on the BAeA website at [www.aerobatics.org.uk](http://www.aerobatics.org.uk) or you can download an entry form from the same page and send it with your entry fee to the BAeA at least one week before the event. Alternatively you can contact Jen Buckenham (01487 833 022) to get a Contest

Entry Form. Entry fees are £10 for BAeA members or £25 for non-members.

## Aeroplane Hire

If you want to hire an aeroplane and instructor for the event, call Jen Buckenham to discuss this as soon as possible. The BAeA will try to make sure that an appropriate aeroplane, with an instructor, is available for you at the event.

## Things you should bring on the day:

- Your Pilot's Licence or Glider Log-book
- Your current medical certificate
- Your current Certificate of Experience or Test
- Your BAeA Proficiency Card or signed Log Book safety authorisation for aerobatics
- Your aeroplane's current Certificate of Insurance that is valid for Aerobatic contests, meeting the requirements of article 6 & 7 of regulation (EEC) No. 785/2004 (or the required MOD minimum if different when the contest is held on an MOD airfield).
- Your aeroplane's Certificate of Airworthiness or Permit to Fly

## If you need more information

The BAeA Code of Conduct, General Rules, Judging Notes and a list of Check Pilots are all available for download from the on the BAeA Publications page on their website at: [www.aerobatics.org.uk](http://www.aerobatics.org.uk)

## To find out more about BAeA events, contact:

### **Brian McCartney**

[contests@aerobatics.org.uk](mailto:contests@aerobatics.org.uk)

*for contest related and general advice*

### **Jen Buckenham**

[membership@aerobatics.org.uk](mailto:membership@aerobatics.org.uk)

*for information about membership of the BAeA*

### **Adrian Willis**

[Adrian.Willis@BlackFusionDev.com](mailto:Adrian.Willis@BlackFusionDev.com)

*to discuss a/c hire for a Special Beginners Day*



*Judging at a Little Gransden BAeA Beginners Day*