

New Members Guidance and Information

June 2019 RJ
Revised March 2021 DMK/NR
Revised October 2023 AJ/BP/NR/SDC

Contents

Welcome	3
About the club	3
Airfield site plan	5
Facilities at the airfield	6
Club fleet	6
Safety on the airfield	7
What to do in an emergency	9
Personal requirements and health	9
Logbooks	10
Weather conditions for flying	11
Training resources	11
What is achievable	14
Who's who	16
Communications	18
Getting the kit out	18
The financial bit	21
Junior members scheme	21
First Lessons	22
Pre-flight checks	29
Launch signals	32
Pre-landing checks	32

Welcome

We are pleased that you have joined our club and want to make you welcome.

This booklet gives you an outline of how we operate and how you can make progress with the sport of gliding, but it is only an outline. We are keen to teach so please do not hesitate to ask any member of the club for help and information if you require it, we will be very happy to assist you.

Please note that this booklet is primarily aimed at new members who are also new to gliding.

About the club

We are a small but friendly club and run entirely by volunteers. Club members take it in turns to run the operations at weekends.

Weather permitting, we fly every weekend and some weekdays when conditions allow.

Gliding is a sociable sport – especially when you are learning to fly. Unlike power flying, it takes several people to make it all happen, so we need helpers at the launch-point and therefore the flying each day is on a "first come first served basis".

When you arrive, please make yourself known to the duty pilot and duty instructor. There is a flying list at the launch-point, so add your name to it as soon as you arrive. Members fly in accordance with their place on the flying list/instructors plan, with the exception of booked introductory flights (which can be seen on the club calendar on the website if you want to know in advance if it is

likely to be a busy day). If you want a second flight, put your name back on the flying list after you fly.

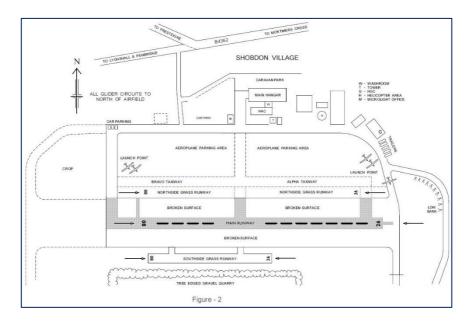
Please get off on the right foot, by offering to lend a hand at the launch point – someone will be pleased to explain how and when to handle a glider. Where and when to push, how to hook on the tow ropes, how to drive the buggy to collect a glider etc. Joining in makes you part of the team.

However, please do not attempt any task until you have been properly shown how to perform it.

If you have not already been given one, *please ask for a progress training card*. This covers the ground handling aspects as well as the flying syllabus. Whilst the latter is completed by the instructors, any member of the duty team can train you and sign you off for most ground activities.

The gliders have to be taken out of the hangar at the start of the day – usually between 0930 and 1000 - and put away when we finish flying – usually around 1600 or later if required. If you join as a member, we would encourage you to be there either at the start of the day to help unpack or, if you come down to the airfield later, please stay to help pack up.

Shobdon Airfield Site Layout



Please note that most insurance policies will not cover your car whilst you are on the airfield. Under a gliding club insurance policy, you will be covered for third party liability, but not for any damage to or theft from your car.

Vehicles are permitted to drive on the tarmac area between the area marked as car parking at the western end and the area of trailer parking at the eastern end. You must keep a good look out at all times and give way to taxying aircraft. Cars may be parked as marked when launching from the western end on runway 08 or adjacent to the trailers when launching from the eastern end on runway 26. Please do not block access to hangars or trailers, farm gates or obstruct the perimeter track.

Please do not venture onto the grassed airfield area south of the tarmac road or go into the hangar without guidance from a club member.

Facilities at the airfield

We have our own hangar and club room for holding briefings/ground school/storage etc. There are soft drinks and you are welcome to help yourself – please recycle or dispose of your cans/bottles afterwards!

Toilets are not available at the club hangar, the nearest are at the Megs Café through the bar area, additional toilets are in the back of the main hangar.

The café is open to the public, usually from 9 to 16.00. There is also a bar, but this is normally only open for events and if we want a drink after flying, we may have a social get-together in our club area.

Club fleet

We have the following aircraft:

Grob 103 – **EWG** - two seater training glider

Twin Astir – **DSJ** - two seater training glider.

Junior – **FFV** - a single seat glider ideal for early solo flights. Usually the first aircraft converted to after reaching a good solo standard.

Astir – GAT – a slightly more advanced single seater glider.

Eurofox - CIFO Our tug aircraft.

Safety on the Airfield

We take safety very seriously. You are however responsible for taking all reasonable precautions to keep yourself and others on the airfield safe. You must maintain a good lookout for approaching aircraft as well as potential hazards on the ground. As a rule there is no shouting anywhere on the airfield except for the word STOP which anyone including club members and visitors should shout if you believe something is wrong. We would rather stop a hundred launches than permit a single increase in risk.

Please don't move away from the launch area adjacent to the control point (adjacent to our small kit trailer) onto any grass part of the airfield without guidance from an experienced club member, who in turn will ask for permission from the tower if you need to enter the taxiways or runway.

When assisting with gliding operations (launching/retrieving aircraft recovering tow ropes) you must wear a hi-vis vest which are available from the launch point.

You must not loiter on the active area of the airfield and must vacate as quickly as practical – remembering to keep a good look out as you walk back to the launch point area.

Never walk in front of a glider at the launch point.

Other hazards on the airfield.

Propellers: Obviously turning propellers are very dangerous but be aware that even if the aircraft does not have the propeller running

the pilot may be about to start up. If you do need to approach the tug, do so from the back but make sure the pilot is aware of you before you approach. Planes with the prop turning clearly only move forward but helicopters can manoeuvre in any direction!

Tow ropes: Tow ropes can be a trip hazard on the ground but can also fall in unexpected directions with gusts of wind. The tug will drop the rope as it comes into land and club members wearing hi vis jackets will run out to collect it. This is the only time we have dispensation to enter the runway without first asking permission, therefore it is essential to keep a good look out for landing traffic; do not run out if there is traffic on approach and vacate the runway promptly. Watch as the rope lands to make sure it is not drifting onto you or others. Never step on the rope as it may damage and weaken it.

Vehicles: Unlike most airfields the public are permitted to drive on the perimeter track. However, aircraft always have right of way. Therefore, drive at a slow, safe speed and keep a good look out especially as you cross the area in front of the main hangar and fuel pumps, as well as the area in front of Tiger helicopters hangar.

WHAT TO DO IN AN EMERGENCY.

Call for help.

If the duty instructor or duty pilot is not immediately available, inform the tower by radio if necessary.

There is a copy of our emergency procedures as well as a flow chart of what to do in an emergency kept in the log box at the launch point as well as on the document shelf in the hangar.

Key points:

Keep yourself safe first.

Do not endanger others.

Do not move injured personnel or damaged aircraft without permission unless avoiding a further danger such as a fire risk.

The following emergency kit is kept in the launch point trailer:

Handheld radio
First aid kit
Fire extinguisher
Cutting gear - axe and bolt croppers

Personal Requirements and Health

Generally, if you are fit enough to drive a car, you are fit enough to fly. Therefore, if you have a UK driving licence you meet the medical requirements to fly solo. If you are under 25 and do not have a driving licence you are required to sign a self-declaration available on the BGA website (see list of links at the end of this document). If

you do not have a driving licence and are over 25 you will need your GP to sign a certificate that you are fit, before you fly solo.

Because of the size of the aircraft, a maximum allowable (clothed) weight is imposed, therefore we cannot generally fly individuals who are less than 50 kg or approx. 5 ft (1.5 m) tall or more than 16 st (105 kg). If you are near to these limits, you should discuss it with your instructor. There is no age limit to gliding if you are physically fit, but you must be over 14 years old to fly solo.

Membership

Before flying you will be required to complete and sign a membership form. If you have started gliding with us by having an introductory flight or trial lesson, this gives you three months membership of the Herefordshire Gliding Club, allowing you to fly as a club member at normal club rates.

There are also 5 and 10 lesson package options available at the launch point or via the website.

Logbooks

If you are learning to fly gliders you will need your own logbook. We provide you with a temporary log card when you start but if you are committed to learning please invest in a proper logbook - £4 each available from the club/online. You should fill in all your flights (please transfer any you have started on your temporary log sheet.) An instructor should make a comment and sign off all instructional flights on a training progress card as well as your logbook. Once you are solo you can make your own comments against each flight. Your log book is effectively a legal document so you need to keep it safe. You must bring it to the airfield whenever you expect to fly.

Weather conditions for flying gliders at Shobdon

All flying is at the discretion of the Duty Instructor, however as a general rule of thumb we do not fly gliders at Shobdon when it is actually raining, if cloud base is less than 2000ft or if the wind exceeds the limits of the tug and or gliders. The Duty Instructor will notify and cancellation of flying via the club WhatsApp group.

In the early stages of your training, it is usually not beneficial to fly if the wind is greater than about 16 knots unless an instructor is planning on taking you "wave hunting".

Learning to fly gliders - training resources

Learning to fly gliders takes time and commitment but should also be an enjoyable process. Obviously, airtime is the most exciting bit, but you will progress quicker in the air if you avail yourself of other learning opportunities:

Ground school

- 1. Informal briefings and debriefings.
 - Instructors love to teach but sometimes need a little
 prompting to make the most of ground time. Use the time
 between flights to ask questions and get instructors to give
 you micro-sessions on topics such as circuit planning, effects
 of controls, understanding the current weather conditions
 etc. a list of suitable topics is found at the end of this
 document.

2. Formal lectures.

 On non-flyable weekend days, the duty instructor may be prepared to give a more formal lecture on useful topics – everyone learns at their own rate and has already had different ground school briefings, so make sure you ask for subjects relevant to your needs.

- 3. Winter lecture series.
 - Over the winter we occasionally lay on a series of monthly lecture evenings – usually 2 lectures on a Tues evening held in a local pub with subjects of interest to both inexperienced and experienced pilots. If you have ideas for topics, please ask. Details of events are circulated on the club's emailed newsletter.

Flying opportunities

- There is instructing available every Saturday and Sunday an email is sent to all members each week with the details for the next weekend.
- We also fly on other days if the weather looks more promising.
 Ask to add be added to the WhatsApp group to get the most up to date information.
- 2. We normally run a couple of five day courses during the summer. If there are not sufficient pupils wanting a full week, we may be prepared to take trainees for part of the week liaise with the instructor running the course or contact the CFI.

Reading List

There are many good books on gliding, and we all have our favourites. Here are some recommendations:

- 1. Gliding The BGA Student Pilot Manual.
- 2. Bronze and Beyond. John McCullagh. All you need to know to pass your bronze exam.

- 3. Gliding: From passenger to pilot. Steve Longland. Basic introduction to key points of learning to glide.
- 4. Understanding gliding. Derek Piggott. For those of you who want to know more about how the glider flies.
- Managing flying risk. BGA. Essential reading to keep yourself and others safe. Club copy available in clubhouse and downloadable from BGA website.
- 6. The Soaring Engine Vol 1 ridge and thermal, Vol 2 wave flying. G
 Dale a primer about how to find and use lift
- 7. Cross country soaring. Reichmann the bible for those who want to progress to cross country soaring.
- 8. Dancing with the Wind. Jean-Marie Clément Manual of slope and wave soaring techniques.
- 9. Sailplane and Gliding the magazine of the British Gliding Association full of interesting stuff.

The gliding simulator. The club has a flight simulator set up in gliding mode in the club building, which you are welcome to use free of charge. You will be surprised how it helps with basic understanding of controls etc. when you are first learning to glide.

Useful websites:

https://shobdongliding.co.uk
Www.gliding.co.uk
British Gliding Association (BGA)
www.xcweather.co.uk
Free site for forecasts for next 5 days
http://rasp.stratus.org.uk
Free, weather specifically for glider pilots
https://notaminfo.com/ukmap
For interest - shows current Notams
(Notices to Aviation) for cross country flying
www.metoffice.gov.uk/public/weather/will-it-rain-today/
Rain
forecast for next 24 hrs

What is achievable?

Whilst you may at this stage just be thrilled with the general idea of soaring solo in an engineless plane, we hope you will make good progress and wish to progress. There are many aspects to gliding including local soaring, cross country flying (flights of up to 1,000 km are achievable in the UK), aerobatics, flying competitions and instructing. Our various instructors have skills and experience in training people to achieve any or all of these goals.

There is a long established series of goals to provide some structure to your post solo training and these are outlined below.

1st solo flight

Conversion to single seater Bronze with Cross Country Endorsement

This is the next step towards what most people would recognise as a qualified pilot.

You will need to have done:

20 solo flights and 10 hours solo, including at least one flight of more than 1 hour after release from tow.

A general skills test of flying competency

A theoretical knowledge multiple choice exam paper.

A cross country endorsement (Field landing exercise & Navigation exercise).

Silver

Silver height – gain of 1000m Silver distance – 50 km flight straight distance Silver duration – a solo flight lasting at least 5 hrs **SPL** (Sailplane Pilot's Licence) – the CAA licence to enable you to fly in Europe and is accepted in many countries around the world.

- 1. 10 hrs dual instructional flight time
- 2. hours of supervised solo flight time
- 3. 45 launches and landings
- 4. 1 solo cross-country flight of a least 50 km or 1 dual cross-country flight of at least 100 km

Gold – 300 km distance, 3000 m height gain

Diamond – 500 km flight, 300 km closed circuit distance to a goal,
5000 m height gain

750 km diploma

1000 km diploma

Passenger Carrying

In gliding you may not carry passengers (no instruction) unless you are specifically authorised by the CFI or deputy to have a "friends and family rating." You may only carry those known to you at your expense.

To carry members of the public as passengers on behalf of the club you can train as an Introductory Flight Pilot (IFP) who provides a first flight experience. A high standard of airmanship is required as well as an SPL or Bronze and Cross-Country endorsement, plus 50 hours pilot in command (PIC) in sailplanes.

Who's who at the gliding club

The club is run entirely by volunteers and we are proud of the fact that we rarely have to pay anyone to do a job as we have members with so many skills.

Some key members are:

Andreas Jelden – Chairman, Junior flying co-ordinator and instructor.

Bob Pye - Chief Flying Instructor (CFI) is responsible for all the flying operations of the club and has the final word in any flying matter.

Mike Dodd - Deputy Chief flying Instructor (DCFI) — retired from CFI but still giving valuable support to the CFI.

Les Kaye – Webmaster, and Treasurer

Alex Jenkins – Club secretary.

Sheridan Chaffey – Membership Secretary

Ken Powell - Tug master and tug maintenance.

Duty Pilot

Experienced members who are not on the instructors or tug pilot rota are asked to join the duty pilot rota. They are responsible for overseeing the ground activities, including getting the kit out and putting it away as well as welcoming visitors to the launch point. They are also responsible for ensuring that someone completes the log.

Duty Instructor

Most days that we fly there is a duty instructor who will do most of the instructing and oversee safety aspects. All flying is at their discretion.

Duty Tug Pilot

We have a rota of experienced tug pilots.

Communications

An email is sent out each week with likely weather conditions and duty team for the weekend. Sheridan should also add you to the list when you join. Please email Sheridan Chaffey, or simply unsubscribe, if you do not wish to be included at any stage.

Key to real time information is our WhatsApp group which is particularly useful for updates on changes any planned activity. Please ask to be added to the group.

The website:

Ask Les Kaye or Sheridan Chaffey for a login, so that you can view the members' information, calendar page and the duty rota.

All log sheets are available on the website, and there is a facility to pay for your flights online or by bank transfer.

If you go to the payments login section under members you will be able to download a list of your own flights at the club.

There are also useful links to various weather sites and sites for cross country planning when you are an experienced solo pilot.

Getting the kit out/putting it away

Weather allowing, we normally get started 09.30 - 10.00 at a weekend. Once you are familiar with the kit and the airfield, if you arrive early you can help by getting the kit out but do not try getting the gliders out unless the instructor or duty pilot are on site. Please ask for a guided tour of all the kit and where it is kept at some point when you join the club.

The buggies are kept in the club workshop on charge. Please ask for the code to get into the workshop when you join. Unplug the electric buggy from the charger before moving it. Ask someone to show you how to check the buggies over before starting.

The small trailer needs to be taken to the normal launch control point, together with the aerotow rope. The tug pilot is responsible for checking the state of the rope and the weak links before using it.

The radios and batteries for the buggies are kept in the hangar and should have been put back on charge. Please put the radios onto the buggies with the battery if needed. Collect the batteries from the charging table and club parachutes from the filing cabinets, for each club glider. We also need the wooden log box with log sheets, a flying list form and sufficient temporary logbooks to cater for the day's introductory flight visitors. A handheld radio is also needed at the launch point (it should also have been put on charge).

When packing up, make sure the following:

Clean the glider with CLEAN water and a sponge

Gliders – as appropriate

Canopy covers put on where available (EWG, GAT, FFV)

Glider batteries – and put on charge

Buggy radios and batteries (put on charge)

Parachutes – placed in their bags in the drawers in the hangar.

Tow rope

Buggies (put on charge with the seat propped up)

If you are the last person to leave, make sure the workshop and hangar are locked up.

Driving the buggy

Please note that the buggy can only be driven by members age 14 and over (or named members under 14) who have been instructed how to use the buggy and the radio calls.

You may not drive onto the active airfield i.e. grassed areas/main runway without permission from the tower — 'Shobdon Information'. If the tower has closed down for the day — usually approx. 16.30 — you will need to make the calls to Shobdon traffic instead of Shobdon information. When the tower is closed you are entirely responsible for checking whether it is clear before you cross the runway, so listen to the radio for other traffic, look to make sure it is clear and nothing is landing or taking off, announce that you are crossing and then cross.

The terminology to use is:

Shobdon information – Rover request cross north grass runway. Shobdon information – Rover and glider combination request cross north grass runway.

Wait for permission from the tower e.g. 'Rover, cross north grass runway' and 'read back' the permission by repeating what has been said.

Then double check visually that it is clear to cross before moving off.

Do not move the glider or buggy or walk across any part of the active airfield with first being given permission by the tower.

The financial bit

The good news is that all instruction is free!

All pupils are required to have some form of membership for which there is a fee. If you are on an introductory flight or 5/10 flight package, temporary membership is included with these flights.

If you want to continue flying after your temporary membership period, you will need to pay a subscription, with the first year's payment being pro-rata depending on which part of the year you join us. See price list on the website (click on visiting pilots – make a payment)

The cost of your flight is calculated by adding the cost of your launch (currently £31.50 to 2000' and pro-rata if you tow higher) and the cost of your flying time (currently £36.00/hr pro-rata but only £6.00/hr for under 25's) — see price list on the notice boards and website for full details.

After flying please either pay online through the club website, or via the iPad at the launch point.

Junior members scheme

To encourage youngsters, namely students between 14 and 21 years of age, the club operates a Junior Membership Scheme. The flying fees for Juniors is part subsidised by the club. As members, the Juniors have the same rights and privileges as other members and all members have a responsibility for their safety and wellbeing while they are under the supervision of the club.

More information is available on the website.

First Lessons

Thermal Soaring

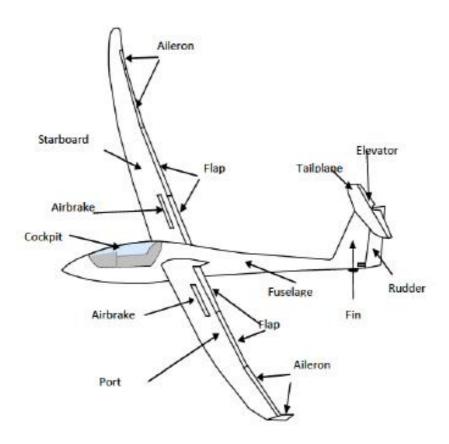
The most common type of lift is the thermal which is a rising current of warm air that has been heated by the sun. As the sun heats the ground, the air near the surface gets hot. Once the air is warm enough, it will start to form a bubble/column and rise. As the air rises, it starts to cool, until eventually it is at the same temperature as the surrounding air and in some cases forms a cloud. Depending on the weather, the bubble may rise as much as 7,000ft or higher. The thermal will have areas of lift on the centre (at the core) and associated areas of sink on the outside. By circling in the core, you can use the rising air. Although thermals are weather dependant, they can be experienced for the majority of the year, with the main season being March-October. Thermals are generally very easy to find, and you can be taught from an early stage how to use them, making your flights longer and more enjoyable.

Ridge/hill soaring – using the deflection of the wind up a slope to soar

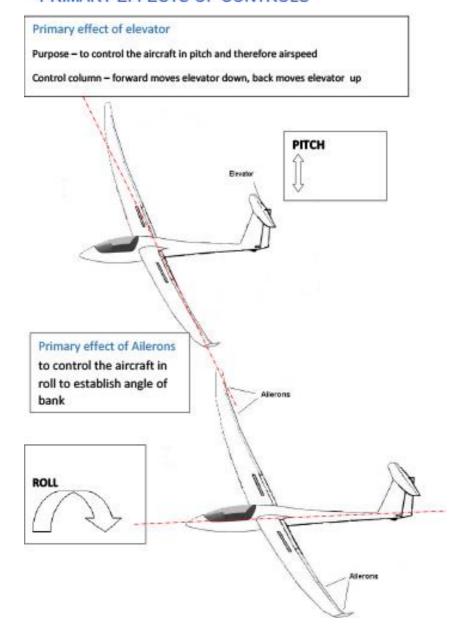
Wave flying – Deflection of large masses of air over mountains in laminar flow to allow soaring to greater heights than ridge lift. Heights of over 30,000 ft have been achieved in Wales.

Parts of a Glider

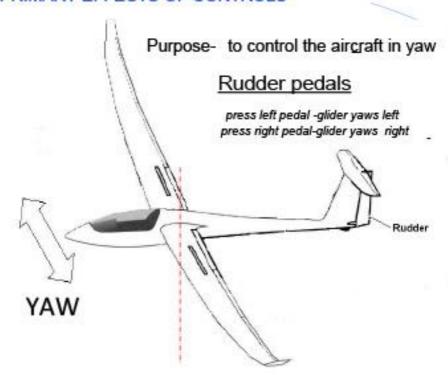
In gliding, flying and other sports certain terminologies are used to describe controls and parts. In the diagram below the different external parts of a glider are illustrated. Some of these parts are the control surfaces that allow you to control the flight of the glider and will be explained in more detail later in this booklet.



PRIMARY EFFECTS OF CONTROLS



PRIMARY EFFECTS OF CONTROLS



Cockpit Instruments



Airspeed Indicator

Airspeed indicators measure the airspeed by measuring the difference between total pressure and static pressure by the deflection of a diaphragm



Altimeter

Measures the height of the aircraft if you have set the datum. By measuring static air pressure which decreases with altitude by the expansion and contraction of a sealed capsule.



Variometer

Measures if the aircraft is ascending or descending. Has a 'total energy' system to compensate for changes of speed of the aircraft

Ground Handling of Gliders

If you perceive an imminent problem that may cause damage or injury shout STOP and report it to the Duty Pilot/instructor

Canopies

Canopies are very fragile and prohibitively expensive to replace. Don't touch, hit, scratch, push on, or support yourself on a canopy.

Only use the DV ('Direct Vision' opening panel) for ventilation when you are in the cockpit. The only time you should put your hand through the DV is to unlock or lock the canopy from the outside.

Support the canopy when opening or closing and never leave a canopy open or unlocked.

The glider

A tail dolly is used to help recover and move the glider. This allows the glider to be pivoted on the main wheel.

The dolly must always be removed prior to take off.

Do not leave gliders parked with the tail dolly on.

A glider trolley (skate) is used under the main wheel and in combination with the dolly allows more manoeuvrability in confined spaces. This is only used on the concrete floors.

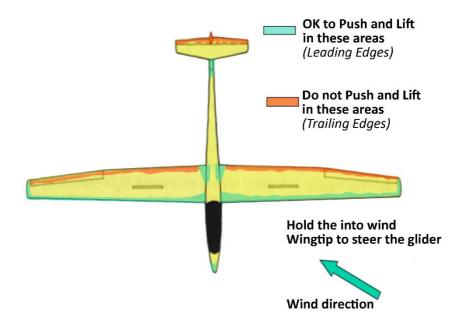
Hold the into wind wingtip to steer the glider. Only one person should hold a wingtip. Make sure you "hand over control" by saying "my wing" or "your wing" if you need to change which wing is held.

Tow behind vehicle - one person beside the nose to prevent over run.

Or, to move without a vehicle, push on leading edges of wing, close to cockpit

Lift only on rear of fuselage - do not lift on the tail plane.

Park glider with "into wind" wing down.



Don't be afraid to ask!

Pre-Flight Checks C.B.S.I.F.T.B.E.C

Do not interrupt the pilot whilst they are doing their pre-flight checks.

Before every flight, the pre-flight checklist must be completed as follows:

Controls: Move each control individually, you must complete visual checks, i.e., have someone tell you what position each control surface is in, and make sure it corresponds to the control input from the cockpit. Then check all three controls (rudder, ailerons and elevator) together, checking for full and free movements, with no restrictions. The check is: controls having full and free movements and operating in the correct sense.

Ballast: Check that the glider does not have unneeded ballast weights in place before you get in the glider. Check to ensure that the aircraft will be flown within the placard weight limits. A glider should never be flown outside of these limits, i.e. too light or too heavy. The cockpit weight can be increased by installing ballast weights to the securing points in the cockpit. **The check is: the Ballast is within limits.**

Straps: Ensure that the straps of both pilots are on and secure. If the aircraft is flown solo, ensure that the straps in the rear cockpit are secured and will not foul any of the controls. **The check is: straps on and secure.**

Instruments: Ensure that where appropriate, the instruments are set to zero. Check that the instruments are reading correctly and there is no broken glass and that electric power is on. Also ensure that the instrument panel is secure. Check that the radio is switched on, on the correct frequency, volume set appropriately, and control switched to front or rear as appropriate. **The check is:**

Instruments all reading correctly, with no broken glass, and set to zero where appropriate.

Flaps: The flaps, if fitted, should be moved through their full range of movement and set for the take-off. The check is: flaps having full and free movement and being set for take-off, or flaps not fitted to this aircraft.

Trim: The trim lever should be moved through its full range of movement, and. set for the take-off. If the glider is fitted with a trim tab, then it should move in the opposite direction to the elevator, i.e. trim lever forward, trim tab moves up.

Brakes: The brakes should be moved through their full range of movement. Open the brakes fully out, and then to half brake, checking on both wings for symmetry. The brakes should then be closed and locked. Most airbrakes will lock with a clunk, and some may take a great deal of pressure to lock. After locking the brakes check that they are locked by trying to open them gently. If you feel no resistance, then they are not locked! The check is: Brakes fully out, symmetrical, brakes half, symmetrical, closed and locked.

Eventualities: Pause for a moment and consider your actions in the event of a problem with the launch or a launch failure. Check the weather conditions and make a note of the wind speed and direction and what your minimum landing speed for the current conditions should be. Consider your options in the

event of a launch failure given the prevailing weather conditions. Remind yourself that the check is 'in the event of a wing drop I will release the cable, in the event of a launch failure, I will lower the nose to obtain a minimum approach speed of 55kt, 60kt etc. release the cable and land ahead, if I cannot land ahead I will make a short circuit and land immediately'.

Canopy: The canopy(s) should be closed and locked, taking great care as the canopy is fragile, easily scratched and very expensive to replace. To ensure that the canopy is locked, you should do a physical check by applying an upward force on both canopy frames.

The check is: Canopy down and locked and resists upward pressure.

Have a last look round for any other potential unexpected problems before accepting the tow rope.

LAUNCH SIGNALS

Pilot indicates he is ready by accepting the aerotow rope.

The wing holder raises the wing which tells the tug pilot that the glider is ready to launch. Note that if the glider pilot decides to stop the launch, they will release the rope.

The tug taxis, and the glider is pushed on to the runway and lined up.

After checking all around that it is safe to launch, the signaller uses a 'light box' and clearly says "ALL CLEAR ABOVE AND BEHIND – TAKE UP SLACK"

When the aerotow rope is taut, the signaller presses the all out button on the light box and clearly says "ALL OUT, ALL OUT" Anyone – at any time - can stop a launch by clearly shouting "STOP" and holding the bat still above their head.

Pre landing checks WULF

- W Water ballast dumped
- **U** Undercarriage Down and Locked
- L Loose articles this includes the pilot i.e., tighten the straps
- F Flaps set for appropriate stage of Landing