



GROUND

TRAINING MANUAL

Throughout this and other manuals in use by the club the term "his" e.t.c. is not intended in any way to be gender exclusive and is used in its generic sense.

The East Sussex Gliding Club operates a policy of gender, religious and racial equality

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WARNING

This manual is not subject to regular amendment, these will be published on the notice boards and where necessary in the Duty Pilot Manual App 2

INTRODUCTION TO GROUND TRAINING MANUAL

This manual represents the "third edition" of the original document produced by Roger Warren in 1991, amended by Steve Barter in 1997. This latest revision of 2006 has been made to reflect the changes that have taken place in the club in the last few years.

These changes include the progression to a new tug, a new type of winch cable, the revision of the motor transport equipment and of course the changes to the officers responsible for the differing sections of the club.

This entire manual is relevant to all of the members of what is, after all, **YOUR CLUB**. It is not only your club that will benefit from the understanding and the application of what is contained in the manual, but the future of gliding as a whole.

At the time of writing our sport is suffering from a general lack of recruitment to the sport and intense competition from other aerial pursuits such as hang gliding, paragliding, etc. The need for us to recruit new members is always with us, but we must all endeavour to keep those members through involving them in every aspect of club life. This manual covers the salient points you need to demonstrate to them for their involvement to be enjoyable and safe.

Of course, we all come to the club to fly, but if we work hard on the procedures explained in the manual then we would all fly more. How often have you been one of the earliest to arrive, and then found that the first launch of the day did not take place until gone 10:30 because everyone stood around chatting, waiting for someone else to DI the winch, or get the diesel?

How often have you been that person chatting?

How often have you waited with everything ready and no instructor? And how often were you the instructor that held up flying because you were late?

How often have you been the duty pilot and failed to find a replacement when you cannot do this very important duty?

How often have you waited after landing for the tractor to reach you for a retrieve because no one was driving it? How often were you waiting for that glider to be retrieved so that you could fly it? How often were you that tractor driver, chatting at the launch point instead of waiting near the landing position?

How often have we all failed to be aware of, and failed to welcome our guests for air experience flights, and failing to be good friendly ambassadors for our club?

We will all remember these occasions in the past from every aspect, because we have all been guilty. We will all get more flying in future if we don't let it happen again. More flying keeps more members.

It affects us all, all of the time whilst we are at the East Sussex Gliding Club. Progress in our club depends on all of us personally putting as much effort into getting other people airborne as we put into staying airborne ourselves.

To the Duty Pilot

Duty pilot, you don't however have to do everything yourself. This is about training, find deputies for your day. Do emphasise to them the importance of the duty pilot and ground training officer's job, don't be afraid to ask about any aspect of the operation.

Train others to do the training, every member of the club should be able to do this. Every body's job is to maintain the standard of this training.

Put forward others to be approved to sign members off for ground training items. Use the ground training cards as instructors use the flying training cards. Make sure that members progress through the syllabus. You should only sign off the required standard on the card when you are satisfied with the members' ability to train others in that job. Don't just sign up cards for existing members; they are the ones who have demonstrated the need for this manual in the first place. Watch and listen to him or her training someone else first.

Finally, my thanks to you for taking the time to read the manual. The efficient running of our club depends on us all carrying out the measures within.

It is inevitable that there will be changes in procedures and personnel from time to time. And with this in mind the Duty Pilot Notes will be updated at regular intervals. Take time to consult in particular the appendices, which should keep us updated on any changes to procedures. The latter manual is designed as a simple reference and does not conflict with anything in this manual, which remains the definitive standard operation procedure for the East Sussex Gliding Club.

David Williams
CFI East Sussex Gliding Club
2006

FIELD SAFETY

CONSOLIDATION OF SAFETY POINTS MADE ELSEWHERE IN THE MANUAL

- ◆ Stay behind gliders at the launch point unless you are helping with the launch.
- ◆ Always walk around the edge of the field.
- ◆ Don't assume you can do something unless you have been properly shown how to do it. There may be more to it than you think.
- ◆ If you are in doubt about something, please ask.
- ◆ If you see someone apparently unaware of procedures then tell them, however be sure of your ground before you do so refer to this manual if in doubt. However sound your own ideas are please do not teach them if they are contrary to the manual, your argument is with the CFI or the safety officer who lay down standards, do not be afraid to raise any concerns you may have with them, they are good listeners.
- ◆ USE YOUR COMMON SENSE.
- ◆ If you have to go into the middle of the field try and find something colourful to wear and keep a good LOOKOUT. If you are in the middle of the field when an aircraft is landing, STAND STILL.
- ◆ In poor light, e.g. towards the end of the day, use lights or hazard flashers when on the main part of the airfield. In general try to stay with gliders and vehicles – people are difficult to spot from the air.
- ◆ Never walk in front of a glider that is hooked on.
- ◆ Know the stop signals and don't be afraid to use them. If in doubt, STOP.
- ◆ Always drive vehicles at a sensible speed, maximum speed for all vehicles on the field is 15 mph.
- ◆ Gliders are fragile. Never push or lift on trailing edges, control surfaces, tail planes or the canopy.
- ◆ Always park gliders properly and close the canopy.
- ◆ If a glider is damaged, it **MUST** be reported to the Duty Instructor and entered in the DI book as well as the duty pilot report form.
- ◆ Never put your fingers through the rings on the cable.
- ◆ Make sure that you are well clear of the cable when the glider is launching.
- ◆ Always treat a cable as live. Do not handle the second cable when a launch is taking place on the first.
- ◆ When launching, don't put your fingers through handles and ensure that nothing can snag.
- ◆ Always keep a good look out in the air and on the ground.
- ◆ **Cable retrieve drivers must never start off without a signal from the winch.**

- ◆ If the cable falls over power lines, never touch the cable and never climb down from the winch.
- ◆ Never walk in front of a powered aircraft. Always treat propellers as live INCLUDING WHEN MOVING THE TUG; heading a moving prop stings and is almost certainly terminal. !!!.
- ◆ Do not leave any of the field gates open when flying is in progress.
- ◆ Look after our air experience guests, escort them to the launch vehicle and introduce them to the duty BI. Try and delegate someone to look after them, they are all potential members.
- ◆ Take care of parachutes if you want them to take care of you. Do not place them on to the ground or on wings, and do not spill anything on them. Ensure that they are returned to the parachute locker and bagged up at the end of the day. Report any defects you see.
- ◆ However new you are, do not be afraid to call “Stop” if you see a hazardous situation developing.
- ◆ Know where the first aid kits are why not become a first aider?

Above all please don't be afraid to say you don't know.

IF IN DOUBT – ASK.

IF IN DOUBT – STOP.

IF STILL IN DOUBT

DON'T!

NEW MEMBERS

The future of our club depends on how we treat people on their arrival when they join. This is also a one off opportunity to tell them how it should be done, rather than let them pick it up, and thus perpetuate, other people's bad habits. Above all do not admonish people for making a mistake, but a quiet and careful explanation (not in public), is the method you should use, and will achieve the desired result.

Spending a carefully considered hour with each new member, or prospective member, will change the future of your club for the better and will also help the new member achieve more from their gliding. From this basis we can go on to improve the safety culture of the club and increase our chance of keeping that member. Other clubs have the same problem - consider the following, an extract some time ago, from an article from Sailplane and Gliding magazine by a professional management consultant. He should know what he is talking about!!!

GOOD BEGINNINGS.

Obtaining and keeping good employees is really not too different from getting and keeping useful club members.

Ask yourself this question. Do you remember the first hour of the first day of your first job? Nearly everybody, whatever their age, will say yes why? What were your concerns? Fear of the unknown. In both starting a job and joining a club you need the answers to three questions!

- 1. Will I like them?*
- 2. Will they like me?*
- 3. Will I be able to cope?*

In other words will I fit in and not make a fool of myself? Will I be happy doing this thing -gliding - which I've wanted to do all my life? Think about the scenario. You have plucked up courage to have a look at the gliding club. You all know where your airfield is but as a stranger could you find it? You can see the gliders in the air but where the hell is the field or the gate to get in? So after an hour driving around the lanes you almost accidentally stumble on the field and drive in.

- "Don't park that bl***y thing there"!!!*
- "Do you mind going to the bottom gate to park"*

Just a couple of remarks I've heard at clubs. Yes, there were signs but don't expect a nervous newcomer to see them. Having parked the car how long is it before you can find someone to talk to? Even then, could they help you? You should consider yourself lucky if you were instantly commandeered to hold a wingtip and possibly cussed for doing it wrong?

These are the low spots and some may well be getting cross at these observations, but all are true. It doesn't exactly conjure up a welcoming mat. Do all clubs actually have a procedure for dealing with new people or just inquiries? Do clubs have a PRO? You are going to need one.

Now for a few ideas that do work: All clubs should have a supply of one-sheet handouts giving a brief rundown on the club plus answers to the top ten questions always asked. On each flying day someone should be detailed to deal with new members and inquiries. They don't need to be experienced pilots. Fairly new members who have just survived the first few months are ideal. They know the problems, who's who, how to keep out of trouble, etc. Give all new members a sponsor - someone to look after their problems in the terrifying first few weeks. This stops stupid errors and embarrassment and keeps the newcomer off the instructor's backs and most importantly, it gets people involved very quickly. In industry, the object is to get the employee happily up to an acceptable standard in a short realistic time. So what's different in a gliding club?

To make sure it always happens have an induction checklist the sponsor can go through with the new member. To get an understanding and commitment it is important that people know why as well as what should or should not happen. It shows that someone cares; they relax, get happy, become confident and competent, and in a very short time are contributing willingly to the club's well being. It really is as simple as that and its fun in a thinking club!

We really must look at the motivation of instructors and their attitudes to students and their ability to get sympathetic. Is there an analogy here with work - which boss gets the most done easily? Does shouting at someone in the work place really make for good discipline? Is it even acceptable? Does it happen at your club? Oh dear!

Gliding is an individual sport where teamwork is only related to rigging - you help me and I'll help you; Launching - well, it's something to do while I'm waiting, and retrieving - he'll have to buy us dinner. It breeds individuals of a tough, resilient, self-reliant nature but these qualities don't help when the chores want doing. These fall upon the few - always the same few. So involve the youngsters they are the instructors of the future!

Finally, there should be a duty officer (no, not a pundit) whose sole job is to ensure things run smoothly and inform firmly and privately those not pulling their weight, but only after having ascertained they know what is required he is the Duty Pilot second only in importance to the CFI. Remember, you can't have an efficient ship unless it's happy and you can't have a happy ship unless it's efficient! I bet this hits a few corns! So here beginneth the lesson - and it never endeth!

This forms a sort of induction checklist. Make sure each member gets told about:

A good article, and food for thought, how do we measure up at ESGC?

WELCOME.

Please make visitors and new members welcome and get them feeling involved from the start.

- ❖ **FIELD SAFETY.** Make sure that everyone, including casual visitors, is briefed.
- ❖ **INVOLVEMENT.** Let them know that it is normal for each member to be responsible for a non-flying job in the club. If we can do this at the start, our shortage of hands to do jobs around the club will soon be over.
- TRAINING.** Tell them about the ground and flying training programmes and start the latter right away.
- ❖ **EFFICIENCY.** The amount of flying they will get depends on the efficiency of our operation and the launch rate. Their help in improving this is vital.

And of course, obvious though it may seem, make sure they get to FLY! There is no more certain way for a new member to leave the club unhappy, never to return, than for him not to have flown. It has happened in the past, and you must ensure in the early days especially that he/she does get to fly. But then if you encourage an efficient operation, utilising this manual as an aid, that won't be a problem, will it? If and when you are Duty Pilot please take time out to read the **Duty Pilot Notes**, which will help you in your duties and encourage new members to do the same.

GLIDER HANDLING

Gliders are designed for flying. They are strong in the air and are built to give the best possible performance. This means saving weight wherever possible and the consequences of this are that when they are on the ground they are relatively fragile.

Treat our gliders with the greatest possible care at all times and follow these rules: Lift or push gliders only at points designed for this purpose. There are usually handles at the tail for lifting. You may normally push on the leading edge of the wing if this is done carefully, but **never** on the trailing edge. **Never** lift or push on control surfaces and **never** lift on the tail plane. **Do not sit on wing roots, or use it as a platform for resting parachutes**

Only one wing is held at one time. Do ensure that one wing *is* being held. When changing wings, the person taking hold of the wing calls "my wing" and the person releasing the other wingtip calls "your wing" only after he has heard the first call. This ensures that everyone knows who is holding the wing. Always hold the into wind wing. This applies whether stationary or moving. If the glider is being moved across the wind or being turned then always change wings to comply with the previous requirement.

Always picket the glider properly. Place tyres on, or stake down the into wind wing, place a tyre under the nose to stop the glider moving forward and the tail lifting, fit a rudder lock and/or put further tyres behind the tail to stop sideways movement and to stop the rudder being bashed from side to side, damaging the stops.

Never leave a glider unattended, unless it is properly parked and picketed. **All club gliders including glass are parked in the same manner** however, private glass gliders, usually ones which are tail heavy, may be parked wing up into wind at the owner's discretion. Remember tyres are heavy and can themselves damage a wing so be careful!

Never leave a glider unattended with the canopy open. A new canopy for a single seater starts at about £1000.

Do not drive vehicles close to gliders. The grass may be wet and you might not stop, even from a slow speed.

Take special care when unpacking or packing the hangar. This entails moving gliders close to obstructions or other gliders. People can usually see the hangar wall, but watch out also for things like pitot tubes on other gliders. If you do not have enough people to unpack the hangar, wait until you do, most of our glider damage occurs in packing and unpacking. This especially applies to moving gliders up and down the field. When travelling down a slope, you **MUST** have someone on the nose to prevent the glider from overrunning into the towing vehicle. In windy weather more people are needed, even if only to stop the rudder banging about. **SAFETY** Should you be unfortunate enough to damage a glider on the ground, **IT IS ESSENTIAL THAT YOU REPORT THIS INITIALLY TO THE DUTY INSTRUCTOR.** The damage may not be noticed on the next DI, and lives could be endangered. Please report any incident or accident to the duty instructor or safety officer. Do not be afraid to put your hand up if you have made a mistake we are all vulnerable, so do not be afraid to share your cockups!! Remember experienced people make as many errors as the inexperienced, (albeit often different ones)

BUT WE CAN ALL LEARN SOMETHING BY OUR OWN AND OTHERS MISTAKES. OVER THE YEARS WE HAVE HAD A LOT OF DAMAGE CAUSED TO GLIDERS ON THE GROUND. WINGTIPS HAVE BEEN RUN OVER , CANOPIES HAVE BEEN BROKEN AND MANY KNOCKS HAVE OCCURRED IN OR AROUND THE HANGAR. HASTE, CARELESSNESS, OR INEXPERIENCE USUALLY CAUSES THIS DAMAGE. THESE ACCIDENTS ARE AVOIDABLE, SO PLEASE TAKE CARE OF OUR GLIDERS.

A damaged glider does not just cost money to repair; it loses revenue whilst it is unserviceable. Both of these things cost you and other members money, and means that you will have to wait longer for your turn to fly. We have far too many costly repairs due to "Hangar Rash". **BEWARE**

GLIDER DAILY INSPECTION

Before the commencement of flying, each glider must be subjected to a daily inspection, or "DI". to ensure that the aircraft is in a safe, flyable condition. It follows therefore that the DI must be carried out by a club member who has been properly trained and cleared to do it. The DI also includes positive control checks and release checks. The DI book, carried in every aircraft must be signed before the aircraft is taken to the launch point.

The DI should not be considered as a mini C of A, but it must check that general wear and tear, mishandling, or indeed unqualified tampering has not created potential problems for pilots flying the aircraft on the day. For example, the glider may have been rigged in the dark following a retrieve on the previous day.

Each member should acquaint themselves with the various attachments and fixings that are used on gliders. For example, the appearance of a self-locking nut, the number of threads that should protrude through it to ensure safe locking; the appearance of a castellated nut and how it is fixed; etc,etc.

The general requirements of a Daily Inspection are listed in the front of the DI book and these requirements should be noted.

THE DI - A SUGGESTED METHOD.

Stand back and look at the aircraft, ensuring that is complete - the fact that the rudder is missing has been overlooked before! Look for obvious irregularities that may point to internal damage or distortion of the fuselage due to a heavy landing or impact.

Check that the C of A is in date and that the DI book does not say that the aircraft is grounded or "off-line" for any reason, this can save you from wasting your time.

Check the historical faults listed - they may not yet have been rectified but simply deferred for future repair if not too serious. Go back in the DI book until you see your own previous DI, noting any subsequent defects since you last inspected the glider.

Starting from the nose, the following must be checked in detail:

PITOT HEAD

Check visually that it is not blocked; it may have been covered for the night. ***Under no circumstances should you blow into any type of pitot, it will wreck the instrument on the other end!***

FWD FUSELAGE	Check the skin for wrinkles and obvious cracks that may point to a more serious problem.
MAIN SKID (If Fitted)	Check for serious cracks and soundness of the fixings. Minor cracking of the timber or glass does occur in normal use.
COCKPIT(S)	Remove all cushions and check the following: The cockpit floor for loose objects and dirt - vacuuming the aircraft is part of the DI.

A serviceable and up to date parachute should be placed in each glider seat as part of the DI.

Check the straps for dirt, general wear and tear and the security of the fixings, frame and buckles, and the seat(s) for security and cracks.

The control columns for security and free range of movement.

The rudder pedals for distortion and free range of movement.

The rudder cables for fraying, binding or fracture. Check the ferrules the cut end of the rudder cable should protrude through the end of the ferrule. Reject it if this is not so.

Trim levers, airbrake levers as for the rudder pedals.

The instrument panel(s) should be secure, but note that some are attached to flexible mountings.

The instruments themselves should be checked for obvious signs of damage, broken glass, or unusual readings.

Reset the altimeter to read zero checking that the needles turn freely and that the subscale alters accordingly and is within a couple of millibars of the local QNH.

The canopy should be checked for unstopped cracks, obvious distortion and cleanliness.

Cleaning the canopy is part of the DI. Check that the restraining lanyard is sound and that the retention spring is properly secured.

Check the operation and condition of the direct vision panel(s) and their mounting rails.

Check the yaw string(s).

CENTRE SECTION (AFT FUSELAGE INTERIOR)

Experience will teach you what to expect when you remove the centre section cover if any, and how the controls are connected and locked off.

The inspection should include:

Main spar and pins, aft "drag pins " and forward drag pins (if fitted) should all be secure and locked into place by safety pins, spring fittings and various other methods. Point out to the trainee different methods of connecting controls.

Control linkages should be locked in place with safety pins, enclosed spring pins or locking wire. L'hotellier connections MUST have a locking pin. The linkages should be free moving and have no obvious defects.

F.O.D.

Loose objects, lumps of mud, pieces of cushion or equipment that have slipped behind the seat all have the potential to jam up the controls. REMOVE THEM! Also look down the rear of the fuselage to check for damage or **FOD** - **F**oreign **O**bject **D**ebbris. A recent control malfunction was due to a stray battery lodged under the seat of a K8, only the skill of an experienced pilot averted an almost certain fatality.

Replace the centre section cover if any and ensure that it is secure.

Now open the airbrakes replace the seat cushions and lock the canopy closed.

WINGS

Sight along the wing checking for obvious distortion. Run your hand along the "D" box looking for obvious damage, especially chordwise cracks. Cracks may simply be in the paint finish but if you feel that they are more serious, stop the DI and consult the duty instructor or the ground engineer. DO NOT CHIP AT THE PAINT, for a better look - this will only confuse the issue and allow water ingress. Open and close the airbrake a few times by hand to feel for any obvious knocking or undue slackness. Mind your fingers! - and then using gentle pressure to upper and, if fitted, lower paddles simultaneously, to check for slackness in the main pivots, which may cause the airbrakes to jam open in flight. At the wingtip check again along the general outline for distortion or damage. The trailing edge should be straight but on fabric covered wings minor undulations are acceptable. Sharp alterations of line should be carefully and thoroughly examined.

Check the aileron for free operation, that the pivots are secure and that the main pivot has its locking device. Open any inspection panels to check bell-crank fixings and pushrod linkages. Check all along the trailing edge for obvious damage. Do not press poke or twist ribs or trailing edge. The glue joints are checked on a regular basis and such actions are more likely to cause damage than detect it. If a distortion in a line or surface is seen, ask the ground engineer!

Do not forget to check the under surface of the wing, stress marks are common at the under side wing root of fibreglass gliders, (common in the K21), and will need continuous monitoring by the ground engineer this can indicate over stressing !

TAILPLANE

Check for visible damage as with the wing and that securing bolts are properly locked in whichever way is appropriate. Check that there is no undue movement of the tail. Check the elevator connection. On K8's the front securing bolt should only be screwed up tight enough to enable insertion of the safety pin. Over tightening may cause damage and alter the incidence of the tail.

ELEVATOR

Check the trailing edge as before and ensure that both elevator halves are secured together with no detectable movement between them. The outer pivots should be secure.

Check that the trim or anti balance tab is correctly connected, with the operating arm or cable as appropriate. The freedom of movement should be checked by asking someone to operate the trim lever in the cockpit whilst you hold the elevator in a central position.

FIN AND RUDDER

Check the fin as per the "D" box of the wing paying close attention to the base area for chord-wise cracks. The rudder should be checked for damage, full and free movement between the stops and for security of the lower pintle bolt. Split pins or locknuts are most commonly used here. Also check the upper pivot.

For all types check that the cables are free moving, sound and secured to the rudder horn. Check that the cut end of the cable protrudes through the ferrule.

REAR FUSELAGE

Check that the tailskid and rubber block (K8s) are intact if fitted. Small cracks do appear in the rubber in normal use. These are monitored so that the rubber is replaced before it fails. The front securing bolt on the tailskid of K8's should be loose enough for the tailskid to flex laterally a little.

The rear fuselage should be examined over its length for cracks or wrinkles in the covering, which may require further inspection. **This is especially so in the areas of the mainwheel and tailskid of the K8.**

WHEELS and BRAKES

Check wheel brake operation, if fitted the brakes must be serviceable.

Check all the tyre pressures, not just the main wheel which is obvious when it's under inflated.

When the DI has been completed you must be satisfied that the aircraft is fit to fly before then signing the DI book. You may be the first to fly the glider!

If you are uncertain about any item then get it checked.

**A QUESTION IS NOT STUPID IF IT NEEDS TO BE
ASKED!**

GET INTO THE HABIT OF DOING THE DI PROPERLY

IT MAY SAVE A LIFE

IT MAY SAVE YOURS!



DI OF M.T. EQUIPMENT

The motor transport equipment is one of the clubs most important assets in terms of field operations. It is also one of the biggest overheads in terms of repairs and maintenance that we have. Perhaps this is in part due to the fact that it is probably the most abused asset that the club, and thus you, owns.

The care of our vehicles starts with a daily inspection, but it does not end there. We need to be careful throughout the day, and look after the vehicles until they are safely garaged at night. The duty pilot notes will guide you in the care and operation of ground equipment.

The daily inspection should include the following:

- ✓ Check the general bodywork of the vehicle for loose parts, such as exhaust systems, obvious damage that requires further investigation, and for signs of massive fuel leaks. Check the controls for physical damage.
- ✓ Check the battery security, especially on tractors where it is exposed. Check the connections.
- ✓ Check the condition of the wheels and tyres, and the inflation of the tyres.
- ✓ Check the oil level and top up with oil of the correct grade.
- ✓ Check the radiator water level. If topping up use 30% antifreeze this is stored in the old hangar made up to the correct dilution.
- ✓ Check alternator belt tension.
- ✓ Fill up with fuel. It is both amazing and infuriating that we can find an allegedly DI'ed vehicle runs out of fuel, not good news on a diesel as the fuel system now has to be bled. It could be your launch that is held up by an immobile tractor in the field.

Of course, the fuel state will need to be monitored during the day. This can be achieved by checking at particular intervals, perhaps at lunchtime, or every time the vehicle is handed on to the next driver.

Don't leave vehicle engines running unnecessarily, however conversely don't keep re-starting engines either.

The general care of the vehicles during the day basically means driving them carefully. Ask yourself whether you would drive your own car in that particular way – if the answer is no, then don't! After all, it *is* your vehicle! Skidding and general "rally driving" do not only damage the vehicle – they damage the field too. Keep to a sensible speed never greater than 15 mph

At the end of the day, wash any mud off and where appropriate, put the battery on charge – and do make sure the charger is switched on!

Due to insurance requirements only members with a driving licence or a provisional licence may drive vehicles (including tractors) on the field once they have been signed off on the progress card.

ANY DAMAGE OR FAULTS MUST BE REPORTED TO THE M.T. OFFICER
REMEMBER ALSO TO BACK THIS UP BY THE DUTY PILOT REPORT FORM
AND A NOTE WITH THE DATE ON THE BLACKBOARD

WINCH DAILY INSPECTION

The daily inspection of the prime mover follows the same outline as that for the other M.T. equipment as detailed above. It should be carried out before moving the winch to the site agreed with the duty instructor for the day's operations. The DI should only be performed by approved winch drivers.

The winch itself should also be checked before moving to the end of the field:

- ✓ Check that all safety guards and safety pins are in place.
- ✓ Inspect drums and running gear for signs of obvious damage or excessive wear.
- ✓ Check engine and transmission oil levels. If very low, check with winch master before adding oil, it is important that you DO NOT OVER FILL.
- ✓ Check for leaks in the drum and transmission braking systems.
- ✓ Check lorry power unit radiator water level – top up with 30% antifreeze.
- ✓ Check alternator belt tension.
- ✓ Check fuel state.

If any faults are found do not attempt a repair before you take advice from someone qualified, then notify the duty pilot.

Before moving the winch check that the guillotine pins are in place, the drum brakes are on and that the cable ends are secure. Check that the "A" frame operating rods are secured to the static balls.

After driving to the site the vehicle should be lined up with the cable run direction. If the winch is to be sited at the southwest end of the field it should be stationed if possible and cross wind permitting, well away from the cottages.

Once the winch is in position, there will be further checks that should be performed:

- ✓ Before leaving the driving cab, ensure that **A GEAR IS ENGAGED**, the engine is switched off and that the **HANDBRAKE** is firmly on **WITH THE IGNITION KEY TURNED TO THE OFF POSITION**
- ✓ In the winch cab, perform a radio check even if signalling is to be by lights.
- ✓ Before starting the winch engine, ensure that the cables are not snarled and the cable brakes are set.
- ✓ Check that the "A" frame operating rods are released from the static balls and attached to the scroll gear balls. **Remove the guillotine safety pins.**
- ✓ Hold the throttle half open and start engine. Run at varying speeds until temperature is up to normal. Keep RPM above 1000 to ensure a positive charge for the battery are s
- ✓ **The cables and associated launch gear need to be checked as part of the winch DI. Any hand contact with the cables should be with gloved hands. Frayed ends can "unzip" skin!**

THE CABLE DI IS A MANDATORY CHECK UNDER BGA RULES

- ✓ Check the towing out gear on the vehicle to be used. Pay particular attention to the swivels and any retaining bolts or shackles.
- ✓ Check quick release hooks on the vehicle.
- ✓ The current accepted method is to draw in cables slowly inspecting every join (plasma rope joins are not easily seen). Remaking any that show signs of unravelling.
- ✓ When both cables are ready, tell the duty pilot. Don't be bullied into NOT doing a DI to save time – it won't!
- ✓ The strops also need to be checked for general condition in the same way. Also check the weak link – that it is the correct one, there is no obvious damage, and particularly that the link is not being "pinched" in its carrier. Check the bolts for security and check the condition of the rings. Remind the Duty Pilot to check the spare strops in the Control Vehicle.
- ✓ The cable parachute should be checked for general condition and lack of twists or tangles.
- ✓ Again, check the shackles and quick-release rings.

If you are wondering whether all this is really necessary, consider this:

Tost launch rings	£18	
Strop cable and tubing	£20	
Weak link and shackles	£12	
Quick release rings	£15	
Shackles	£12	
Drogue 'chute	£150	
Swivel and shackle	£12	Total (2004 prices) £239

As for the cost of the New Plasma rope I haven't got room for all the zeros here!!

AT THE END OF THE DAY BEFORE RETURNING THE WINCH TO THE HANGAR

The new plasma rope needs to be reeled in under NO LOAD, after the last launch of the day pull out the cables and reel them back in.

Stow drogue chutes securely, fit scroll gear rod to static balls and fit guillotine pins

On parking the Supacat back in the hangar at the end of the day, release both payout brakes and master switch under the seat off, handbrake on, pneumatic brake off.

LAUNCH POINT PROCEDURES

The launch point is potentially the most dangerous part of the field, where most of the ground activities are concentrated into a small area. The hazards present at the launch point should be familiar to all, be they old or new club members or indeed visitors to the club. Do not allow anyone to carry out a task at the launch point unless you are sure that they are 100% competent at the task that you are assigning to them. For visitors or new members a task that seems so obvious to you will be quite daunting. Is this because they appreciate the responsibility more than you do?

FAMILIARITY BREEDS CONTEMPT!

THE LAUNCH CONTROL VEHICLE

Towing out can only be done with the Dexta tractor or the David Brown. Please try and avoid using the Dexta for any other purpose. Before towing, raise the screw jacks the unit is standing on; this is important, they are over £100.00 each. When siting, make sure the jacks are standing on wood, not directly on the ground or they will sink, and you will not be the most popular person on the field. Wood for under the jacks is stored inside the square tube supporting the jacks. Lock the padlocks to something after opening the doors, to avoid them falling out on the field.

Before towing away from the old hangar site, unplug the charging socket from the rear of the unit before moving off. Don't worry about switching off, there's no need as the cable only carries 12volts. Stow the cable neatly so that it isn't run over on the way back. When plugging back in, make very sure the cable is not caught on the rear of the unit, or draped over the rear bumper. The cable should lay directly out to the rear in free space. The plug has been modified so that when someone moves off without unplugging it will disengage without tearing the hanger down. The socket on the rear of the unit is on a swivel to assist in the plug coming out without damage.

Please make sure this is pointing straight out the back when plugging in the lead. Log sheets and membership forms should be kept in the top drawer along with some spare pens etc. Try keeping the launch vehicle reasonably clean and tidy, let's all try to present a slightly more professional front to our visitors.

Check that the Duty BI has taken the mobile phone for storage and recharging. Any damage or modifications required should be reported, please don't do it yourself without authorisation. The cabin contains a very large battery, which will have been charging during the previous night.

On returning plugging in the charge lead back at the hanger, this will automatically switch off all power supplies within the unit. All items should be put away before leaving the vehicle for the day to discourage break-ins, theft etc. Please take your rubbish home, especially perishable, and unwanted foodstuffs. Refuse sacks are kept in the kitchen.

CRASH TRUCK

The "Crash truck" should be checked for full inventory and serviceability of equipment and positioned at the launch point.

During flying it must always be attached to a car with the keys left in the ignition ready for immediate use in case of emergency.

GENERAL

Stay behind gliders that are preparing to launch unless you are assisting with the launch.

If you are assisting at the launch point, do be on your toes and help to keep things moving. If you are assigned to a particular job then keep doing it until you are properly relieved. All too often a delay of say, 30 seconds at the launch point can turn into a five-minute stoppage. For example, if a glider has to wait for another to land it is invariably that glider that will land on the cable and hold up the next launch until it is cleared. So, help the pilots with their checks, be ready with signals, and treat every launch as urgent, If we want to maximise our flying time, **IT IS!**

HOOKING ON.

Remember the types of hook:

Belly hook for winching

Nose hook for aero towing (**use the right one!**)

Be familiar with the weak link system. A weak link is inserted into the cable system to avoid over-stressing the glider. It is extremely important that the correct strength is used. At ESGC we use Tost weak links that are colour coded. If you are uncertain of the correct link to be used, ask the P1 of the glider. If he doesn't know, do not launch him! Spare weak links are kept in the launch vehicle.

Weak link assemblies on the "strops" should only be made up by persons approved so to do.

The winch driver has total discretion over which cable should be used first in multi-cable operations. If there is any crosswind then the downwind cable will generally be used first. Make sure you know the order of use.

The spare cable(s) should be pulled well clear of the launch path of the next glider to go.

Before hooking on, make sure that all shackle screws on the strop assembly are secure, that the cable and its parachute are not twisted and that the correct rings are fitted. The pilot will ask for "cable on please". Check visually that the airbrakes are closed, the canopy is shut, that the tail dolly has been removed and that there are no obstructions (e.g. tyres) to the launch. Then ask the pilot "canopy and airbrakes closed and LOCKED? Make sure he checks them, and then hook the cable on. Give the cable a firm tug forwards to make sure that it is properly attached and tell the pilot "cable on and secure". The pilot is deemed ready to launch as soon as he accepts the cable and is not required to give hand signals during the launch phase. The person responsible for hooking on the cable should give the signals.

SAFETY POINT - NEVER PUT YOUR FINGERS THROUGH THE RINGS.

The glider is now ready to launch. Make sure you are not in the way and that you are clear of both the cables.

SAFETY POINT ALWAYS TREAT A CABLE AS LIVE.

Never play, fiddle, or work on cables unless you are totally certain that is safe to do so. Remember gliders or vehicles crossing the field can snag them. If there are two cables, they can become crossed and activate the apparently dead cable.

WINGTIP HOLDING

If you are the wingtip holder **make sure that nothing you are wearing can snag on the wingtip.** Rings or clothing can be dangerous - there have been instances in other clubs of severed digits. **Never put your hand through the handle when a glider is launching, these are for ground handling only.**

Expect to have to run with the glider until it gains sufficient speed; therefore make sure that you have a clear, unobstructed path with no mud patches to slip on!

If there is a crosswind, hold the **down wind wing** and release it as soon as the glider starts to move.

THE LAUNCH MARSHAL.

This is a good job for someone about to have their name added to the duty pilot list as it gives a degree of responsibility for overseeing many of the other launch tasks. It can be combined with assisting the duty pilot for the day in order to "learn the ropes". It should be emphasised to the launch marshal that every point that follows is important in terms of the safety and efficiency of the flying operations.

In short the launch marshal is the deputy duty pilot. In particular, he is responsible for the running of the launch point during the day. The gliders should be organised into sensible queues for launching. Gliders not about to be flown should be parked out of the way and away from the approach area. Do try and think ahead when marshalling gliders on the flight line, this can be a great time saver.

Ensure pilots about to fly are ready in their cockpits with checks completed. If possible, get instructors and pupils together in good time, so that pre-flight briefings can be given without holding up launches.

Treat every launch as urgent - if we want to maximise our flying then it is. If the launch marshal does his job properly there should be no delay at the launch point. The first glider should be ready before the cable arrives at the launch point. If we are using two cables the second glider should be ready for the cable before the first has released. Note that this does not say attached to it!

Ensure that you have people in position to take the cables off the retrieve vehicle and hook on to the aircraft, that there is a wingtip holder, and that the person hooking on then goes on to signal for the departure.

TRIAL LESSONS

Taking on too many trial lessons means that people get upset - the visitors, because they are kept waiting too long, and the members because it reduces the number of launches available to them. Do remember though that trial lessons provide the club not only with a source of income, but also with a supply of new members. The duty BI should have extracted the guest list from the computer to enable you and the BI to organise the day, please try and fly our guests on or near to their booked time, they have paid us a lot of money and often travelled from far away.

Booked trial lessons must have priority, do not promise trial lessons for un-booked guests unless you have consulted the duty instructor and/or duty BI, and you are sure you have the capacity to carry them out without disrupting member's flights. In the event of poor weather or no aero-tow please make an attempt to contact booked guests, the BI phone should have time credit exclusively for this purpose.

SIGNALLING.

The purpose of the signals is to convey to the winch driver or tug pilot that the pilot is ready to launch.

The pilot will not accept the cable unless he is ready to launch. On accepting the cable he passes responsibility for the launch over to the signaller.

The signaller is then responsible for checking that the areas, which the pilot cannot see, are clear. Obviously this most importantly means above and behind him, so check these areas carefully. Do remember however that there are places in front of the glider that the pilot may not be able to see, e.g. over the brow of a slope. Also, by way of a double-check, make him aware of other aircraft which he should be able to see.

IF all is clear, the signaller calls "all clear forward, above, and behind, take up slack", and commences the up-slack signal.

When the slack has been taken out of the cable, the signaller then calls "all out", changing to the all out signal. This should be continued until the glider is well into the climb and the winch driver can see the glider. Keep your eye on the glider throughout the launch, should a weak link break you should then be able to locate it on the field, the loss of a stop costs the club money to say nothing of potential damage to the mowing gear.

Be particularly vigilant when aero-towing is in progress. The tug will often be landing in the opposite direction to the winch line and it can be difficult to be seen on final approach. Read the opposite launch procedure in the App 2 (notices) of the Duty Pilot manual kept in the caravan.

Remember it is vital to appoint a forward signaller when aero-towing.

The last signal is the stop signal. It is the most important, and can be given by anyone on the field if there is any danger in launching

On receiving a stop signal pilots must pull the cable release.

DO NOT BE AFRAID TO GIVE A STOP SIGNAL!

If a stop signal is wrongly given then all we will lose are a few minutes whilst the launch is recommenced. If the stop signal is not given when needed, then we may lose a life.

IF IN DOUBT CALL STOP.

Stop signals may be given because aircraft are about to land (Be aware that this may occur from unexpected directions.); because the launch has been "snatched" and there has been an overrun; animals or people have wandered across the field; or the glider has been seen to be unsafe, due perhaps to airbrakes being open or the tail dolly still attached.

The stop signal may also be given to people or vehicles on the ground.

The methods of signalling in use at our field are:

Red Bats and Lights for winch launches, and White Bats for aero-tow.

- ❖ **TAKE UP SLACK** - The bat is moved through the lower half of a circle from horizontal to horizontal.
- ❖ **ALL OUT** - The bat is moved through the upper half of a circle from horizontal to horizontal.
- ❖ **STOP** - The bat is held vertically and stationary. Also call out : -

"STOP!, STOP!, STOP!"

Make sure you can clearly see the person signalling to you, or that the person you are signalling to can see you.

Make sure that the bat can be seen against the background.

Do not move the bat beyond the horizontal.

LIGHTS

NB : -The light procedures, and design of light signals are presently under review, and at present launches are by radio. (See duty pilot manual when lights are introduced)

When using lights they must be carefully aligned to point at the winch: -

- TAKE UP SLACK** - Slow flashing, dashes of one second followed by a two-second interval.
- ALL OUT** - Rapid flashing, dots with a one-second interval. Do not do this too fast or it could look like a stop signal.
- STOP** - Continuous light.

NOTE

Lights are also used for winch-to-retrieve vehicle signalling. The radio should not normally be used for this purpose. Should the cable retrieve stop part way through the retrieve the radio may be used to seek assistance and clearance to recommence the retrieve.

RADIO (WHEN LIGHTS ARE NOT OPERATIONAL)

When using Radio : -

INITIAL CONTACT-	Call Sign, Glider type, Cable to be used, and any other relevant information
TAKE UP SLACK -	Repeat verbally every 5 seconds
ALL OUT -	Repeat until glider is in winch drivers' view
STOP -	Repeat until launch is stopped.
NOTES -	Remember that the noise of the engine may make it difficult for the winch driver to hear you.

Do not keep the transmit button pressed in between messages. Frequency used is 129.90MHz, this frequency to be used for ground to ground only.

Establish contact before commencing the launch,

E.g. "Ringmer winch, this is Ringmer launch point".

NB. The tug or motor gliders will call the Control Vehicle ready for take-off when they are ready to depart, you should confirm that there are no hazards that are unsighted for them and tell them to "hold" or give "take off at your discretion", also include details of any potential hazards.

HAND SIGNALS

Hand signals are used to relay signals over short distances. The hand signals may be used with **red bat for winching** and a **white bat for aero-tow signalling**. This is particularly important when simultaneous aero-tow and winching is in progress, to avoid confusion between winch and aero-tow lines.

Additional signals may be used to warn the winch driver of an impending launch request. The bat may be held vertically and spun to attract his attention; or the radio may be used to fore-warn him. Again, don't keep the transmit button pressed. Before giving these signals, make sure you know which cable is being used.

In the event of stop being called always check that the pilot has released the cable.

Unless you are operating on aero-tow only, radio should **not** be used for despatching the tug in order to save confusion with the winch line.

After launching please remember to watch the glider throughout the launch in order to pinpoint the stop should a weak link be broken.

**WHICHEVER METHOD OF SIGNALLING IS IN USE,
IF YOU DO NOT RECEIVE A CLEAR SIGNAL THEN STOP.**

GLIDER RETRIEVE

Getting an aircraft quickly and safely back to the launch area is one of the key points in an efficient operation. Not only does it clear the landing area for the next arrival, it also provides the next pilot with a glider to fly!

Familiarisation with the vehicle - the retrieve driver should be fully conversant with the vehicle and know which gears to use for driving out to the aircraft and for towing it back (if in doubt ask and/or consult the DP manual). He should also know how to DI stop and start his vehicle.

Tow rope - Before doing anything else, ensure that the retrieve vehicle has a suitable towrope. This **MUST** be of length at least 3/4 of the wingspan of the glider to be towed and fitted with the correct rings for hooking onto the glider. Only use the winch launch hook for retrieve.

Extra person - you should have one person on the wingtip and one at the nose of the glider. This is done whenever possible on all days, but is essential on a windy day, or when towing downhill and/or down wind. Thus if a single seater is to be towed, make sure someone accompanies the retrieve driver. Be aware which gliders need dollies, and always carry rudder locks on the tractors for use with the K8 and K13.

Position of retrieve vehicles - ALWAYS return to a position at the side of the field approximately abreast of where the gliders are landing. If there is a crosswind, then this should be on the UPWIND side of the airfield. It is important for the smooth operation of the field that retrieve vehicles always return to this position even if no gliders are airborne. The next launch could be a cable break with the glider ending up near the winch and blocking the next launch. The route to the glider should always be around the edge of the field.

Which glider to retrieve - If more than one glider lands together then always retrieve the one nearest the cables first. Aim to keep the launch line clear. If there are several gliders in the way and only two vehicles, then pull the gliders to the edge of the field to clear the landing area before finally returning the aircraft to the launch point. If gliders are not in the way then give two-seaters preference as the dual list is usually longer.

Check the circuit - before driving onto the field, check that there is no tug or glider approaching to land. Check not only in the normal circuit pattern but also for gliders and tug approaching low from other directions.

Driving onto the field - Having checked that it is clear, proceed onto the field. If the light is poor use headlights or hazard warning lights. Position the retrieve vehicle ready to tow the glider - this will normally be at the rear of the aircraft so leave space for turning the glider and help the pilot with this. Never drive directly towards a glider.

Towing - Select the correct gear (usually third) and tow the glider at walking pace. If the wingtip holder has to run there is a risk of damage to the glider. Be especially careful when he is on the outside of a turn. Make sure the people with the glider are ready to start. Towards the end of the day make sure you know whether the glider is to return to the launch point or the hangar

The driver and crew should be in verbal contact at all times, so if you are using a car for retrieve please have the window open and car radio off.

Lookout - whilst towing the glider a good lookout should be maintained. The driver should know what is going on behind at all times to avoid getting the glider into a dangerous position particularly when approaching the Launch point area.

Keep a good lookout for other gliders about to land. If a glider is on final approach the towing combination **must stop unless you are moving clear of a landing aircraft**. The wingtip must be lowered so that the landing pilot knows that you have stopped. Be sure that everyone is ready before you start off again.

Route - do not head straight for the launch point. Tow the glider to the upwind side of the field, clear of both the launch and landing directions and then proceed along the side of the field to your destination.

Obstructions - when you reach the launch point or hangar do not tow the glider in close proximity to obstructions such as other gliders, cars, caravans, trailers, etc. If you have no alternative but to pass close to an obstruction, then do not try to judge the clearance yourself from the vehicle. Get someone else to make sure you are clear.

IF IN DOUBT, STOP.

Changing wings - The into wind wingtip should always be held. If you are turning across the wind then stop so that the crew can change wings.

Arrival - when you reach your destination stop the glider in a suitable position. If you are in doubt about obstructions, stop short. It is better to manhandle the glider onto the launch line than to damage possibly two gliders in a collision.

Driving off - before leaving the glider it is imperative that the rope has been seen to be released and well clear of the glider. Make sure that there are sufficient people to handle the glider before you leave them. Then return to the retrieve position ready for the next glider.

Relief - do not leave the vehicle until you are properly relieved. A retrieve vehicle left unattended by the caravan is a launch lost, maybe yours!

CABLE RETRIEVE

One of the most important factors in the efficiency of our operation is the speed at which cables can be provided for gliders waiting to launch.

There can be few things on the airfield that are more frustrating than sitting in your glider with the biggest cumulus ever to have had the decency to drift over the launch point waiting to drag you through the tropo-pause, (or at least to the base of the TMA!), whilst the cable retrieve driver ponders whether or not to stop and look for the cable that has just dropped off, thereby holding up your launch until the next blue hole comes along.

There are also few things which have the potential to cause a snarl up on the winch than a poor cable retrieve driver, who is perfectly capable of holding up flying for a long time.

Hence the importance of emphasising in your training the following points:

Preparation

Before becoming involved in cable retrieve, it is recommended that the student spend some time at the winch to have a look at how this end of the field operates.

Safety

Whilst at the winch the first rule of cable retrieve should be emphasised:

NEVER START OFF UNTIL YOU RECEIVE A CLEAR SIGNAL TO DO SO FROM THE WINCH DRIVER. The winch driver may have his hand in the drum clearing a jam!

Cable breaks

At this point explain clearly what to do if a cable breaks. The retrieve driver is responsible for locating and returning the broken end to the winch - that is the broken end on the glider side of the break. The student should also be shown how to mend breaks in the correct fashion and the retrieve driver should assist the winch driver in the clearing of jams.

Familiarisation with vehicle

Make sure that the student is fully conversant with the vehicle he is to drive, and knows which gears to use etc. The two cable retrieve vehicles are quite different, and use different gear ratios for towing. (See Duty Pilot Notes and instructions in the vehicles).

Safety

It is **vital that pupils should be signed off** as competent with regard to field safety **before** being sent on cable retrieve duties. The retrieve driver is going to be on his/her own in the middle of the field and should not be put in this position unless they are safe. To make sure of this the new driver should be asked, not told, about field safety.

If there is any doubt whatsoever in your mind, then he/she should not be cleared for this important duty.

There are two very different sets of rules for cable retrieve depending on whether we are using single or multi-cable operations.

SINGLE CABLE

Retrieve position - the retrieve vehicle should wait on the UPWIND side of the field approximately abreast of where the cable is landing after launches.

Retrieving

When the cable has landed drive to the parachute. Hook the weak link onto the vehicle. Wait for the up slack signal from the winch, and then drive slowly forward to take the slack out of the cable. When you get the all out signal, accelerate smoothly to a comfortable speed. Check by looking behind that all is well, especially just after starting off.

Route to the launch point - this is not critical with one cable so drive to avoid any bad patches in the field. You may be asked to use a specific side of the field, for example when aero-towing operations are in progress.

MULTI-CABLE

Retrieve position

For multi-cable operation, always return to the winch to await the cables and wait well behind and **up-wind of the winch to avoid falling cables.**

Retrieving

When all of the cables have landed, position the vehicle in front of the winch pointing in the direction of the launch point. Hook the cables onto the vehicle, ensuring that they are not crossed.

Route to the launch point

When using more than one cable the retrieve **must** drive in a straight line from the winch to the launch point. This is to avoid the cables becoming crossed. If you cannot see the launch point pick an appropriate landmark to keep you straight.

Dropped cables

Should one cable break or drop off the vehicle during the tow out **DO NOT STOP**. Continue with the tow out. On reaching the launch point arrange to have the dropped cable pulled in to the winch before launching continues.

GENERAL

These points apply to either type of operation.

Weak links - the weak link used for cable retrieve differs from that used for launching. It is made up of a piston and cylinder with a nail that will break more readily than the main cable. Always hook the cable onto the weak link on the vehicle and carry a supply of spare nails, these are special nails and are kept in a tin in each vehicle.

Arrival

Start to smoothly decelerate before you reach the launch point. Be aware that if you are pulling out almost all of the cable on the drum that you may have to stop short.

Stopping

You may have to stop for a landing aircraft, or the weak link may break. Should this happen, **wait for signals from the winch before moving off again.**

No signals

If you do not get a signal, leave the cable where it is and return to the winch. However under these circumstances it is acceptable to use the radio in order to liaise with the winch driver.

Look out –

Reinforce the general look out principles. **The cable retrieve driver should also be watching the cable on every launch.** If there is a cable break he/she should be ready to bring the broken end of the cable to the winch as soon as it is safe to do so. If the launch weak link breaks he/she should watch the strop land and retrieve it after the next cable retrieve. He/she should also be aware that even if he/she is in the right place, the cable might not be! He/she must watch where the cable is falling.

Parked aircraft

When retrieving cables, the retrieve should not be continued if an aircraft lands close to the cable run.

Smoothness

Whenever accelerating or slowing down do so smoothly. If this is not done, a loop may be thrown on the winch.

Relief

Do not leave the job until you are properly relieved.

WINCH DRIVING

To be “qualified” to drive a winch means that you have been trained and signed off on that particular winch by one of the people designated as winch driving instructors. Any qualified winch driver may train, however final checks will be conducted by the winch master, or one of his designated trainers.

READ THE APPROPRIATE WINCH MANUAL BEFORE COMMENCING TRAINING, IT CAN BE FOUND IN THE WINCH CAB, ALSO WINCHMASTER HAS AN UP TO DATE COPY

To be a good winch driver you need proper training and experience. There is no substitute for this, so don't despair if you can't get it right first time. It is difficult to put experience down on paper, but following these simple rules should help:

- Pilots should start to learn to drive the winch just before they go solo. A student pilot should visit the winch and have a basic briefing on what happens “at the other end” before he is taught to fly the take off and launch phase. ***The skill displayed by a good winch driver is comparable to the skill required to fly a glider.***
- It must be clearly understood that winch driving varies with weather conditions and glider types. Winch drivers must be cleared to drive in different weather conditions, and should not attempt to operate the winch in conditions for which they have not been cleared. If you have any doubts arrange for further training/checking, do not winch if you have any doubts or you are not fully confident of winching in the prevailing conditions!!

IT IS THE WINCH DRIVERS RESPONSIBILITY TO ENSURE BEFORE LAUNCHING IT IS SAFE

This applies despite signals from the launch point. As well as all the normal points regarding obstructions, you must be aware of where the cable might fall.

- If you are not happy with the position of the winch then talk to the duty instructor and move the winch before continuing to launch.
- Make sure that the winch engine is warm before launching. This is especially important at the start of the day.
- All throttle movements need to be smooth, jerking the throttle will not give a good launch.
- It is normal to use the downwind cable first. It is the winch drivers' choice, and will depend on how the cables are falling. Variations in the winds at altitude may dictate that the “upwind” cable be used first.
- On receiving the “take up slack” signal, slowly take the slack out of the cable. Slack can usually be taken up with the engine idling. It may be necessary to “check” the drum with a little brake to ensure that the cable comes tight slowly and smoothly without causing the glider to jerk forward, which might result in an overrun. Do not advance the throttle at this stage unless the cable is taut and the take up slack signal is still being given.
- On receiving the “all out” signal, smoothly but promptly open the throttle to give the glider flying speed. Ensure the glider has plenty of speed to take it up through any wind gradient. If you don't know about wind gradients, you are not ready to drive the winch! You must maintain a tension in the cable throughout the launch. **NEVER** allow the cable to go slack until the end of the launch.
- If the pilot signals too fast, smoothly reduce the power. The ideal launch speed is about 5 Kt below the maximum permitted winch launch speed for a particular glider. This can be estimated by watching the angle of climb. If the glider is pulling back well without giving a too

fast signal then the speed is probably close to correct. If the pilot starts lowering his nose, it's too slow. As the glider climbs you will no longer be able to judge the angle of climb, so look for the bow in the cable. A very slight bow for a K13, or K21, more for K8's and other single seaters. Remember that most glass gliders need a fast launch. Remember also that a lot of two seater launches are done by students and they don't always do the right thing.

- If the glider has not released by the time the cable angle reaches about 80 degrees, then sharply close the throttle to terminate the launch. After release from the glider, look at the cable as it emerges from the roller. The slack here **MUST** be taken out by a burst of full throttle.
- Once the slack has been taken out wind in the cable at just above idle throttle. The objective is to keep the cable airborne and wind it in under tension which causes less wear on both the cable and the 'chute. If using one cable allow it to fall as far up the field as possible to shorten the retrieve. If more than one cable is in operation, then they must be wound in fully. Aim to have the engine at idle as the cable hits the ground. Brake in good time to avoid the parachute being wound into the rollers.
- In light / zero wind conditions a lot of power is needed, possibly full throttle for the take-off for the two seaters with only a slight reduction in power as the climb proceeds. **Cut the throttle earlier than normal to reduce the chances of a snarl up.**
- In strong winds the wind gradient will be more marked and it is imperative that the glider will become airborne at a lower ground speed. Once the critical height has been passed, the power can be reduced to a setting appropriate for the conditions. The engine may be close to idle if the wind is very strong. Never attempt to "Kite" a glider by paying out cable against a closed throttle, this could damage the fluid clutch.
- It is the airspeed of the glider that is most important. This is related to the wind strength and can vary from launch to launch. You need to know what speed to use for a particular glider on a particular day, if in doubt check with the owner if you are not familiar with the glider.
- Launching in crosswinds can bring special dangers. You **MUST** be cleared to drive the winch in crosswinds before attempting to do so.
- Be especially clear about where the cable might land. Do not risk dropping the cable onto a glider that has just landed. Cables and particularly parachutes that have fallen over a hedge should only be manually retrieved.
- If you feel that there is any danger of the cable falling across the road **STOP THE LAUNCH.** The safety of the launch is your responsibility. Always assume a worst-case scenario: that the winch engine may stall, or the cable may break and drift onto the road. Always abort a launch before a dangerous situation arises. **Don't let anyone talk you into a launch you are not happy with.**
- If the cable breaks or a glider releases in mid-launch, make sure that the glider is clear before you wind the cable in. Check with the launch point before moving the cable. Make sure that the cable retrieve driver is clear that he must not move a cable without a signal from you. If the driver moves a cable without your signal, apply the brake fully and break the weak link.
- Do not leave the driving position unattended during tow-out. Set the brakes before tow-out commences, but be ready to adjust them as required.
- If aero-tow or motor glider is taking off with a cable laid out the winch driver must remain in the cab and be prepared to use the guillotine in the event of a cable being snagged.

UNDER NO CIRCUMSTANCES launch in a crosswinds that is towards the road. If we drop a cable across the road apart from the danger to life and limb, it may result in the closure of the club.

WINCHING EMERGENCIES

If the glider fails to release

If the glider has failed to release by the time it is well over the winch, briefly apply the brake. If this fails to ensure a back-release, stop the engine and **GUILLOTINE THE CABLE**.

Cable falling onto an obstruction

Try to wind the cable in at maximum power. If it is still going to fall onto the obstruction, apply the brake and stop the engine.

Cable on power lines

- ❖ If the cable falls onto power lines assume it is **live** this applies to plasma rope too.
- ❖ No one must touch the cable. **DO NOT CLIMB DOWN FROM THE WINCH**.
- ❖ If you must get down, **JUMP** well clear.
- ❖ Avoid touching the winch and the ground at the same time.

Lightning

Two thousand feet of cable poking into the sky can be a good lightning conductor, this applies to a damp plasma rope too. Do not launch if there is lightning within 5 miles. If you feel that the cable may have been struck, **DO NOT CLIMB DOWN FROM THE WINCH**. If you must get down, **JUMP** well clear. Avoid touching the winch and the ground at the same time.

Low cable breaks

In the event of a low cable break, real or simulated, **stop the cables immediately to avoid the glider flying into the parachute**. Release the drive, switch off the engine and await clearance from the launch control before moving the cable.

Plasma rope repairs

Plasma rope breaks requires a new technique for rejoining the ends together. Breaks appear to be fairly rare on cables that are well cared for, which means we don't get a lot of practice. If you have any doubts regarding your ability to sew the broken ends together, get help. It will be quicker and safer in the long run.

Better still get someone to show you how it's done and start practicing, it's one way of guaranteeing you'll never get a break while you're winching.

AERO-TOWING

Aero-towing will only take place under the auspices of a qualified instructor and tug pilot. The tug pilot shall be responsible for the safe operation of the tug.

- ❖ When getting the Tug out always assume the magnetos and thus the propeller is live. Do not handle the propeller.
- ❖ Don't approach any aircraft with engines running.
- ❖ Never walk in front of a moving propeller.
- ❖ Aircraft may only be refuelled by a qualified pilot. When refuelling from the fuel installation the refuelling protocol must be adhered to.
- ❖ If a separate launch point is being used there must be satisfactory communication between Tug, launch point and winch. If opposition launching is being carried out the current opposition launch protocol must be adhered to. (See opposition launch protocol in the DP manual)
- ❖ A forward signaller must always be used unless specific dispensation is given by the duty instructor of the day. When launching in the S/W direction (R/W 24) the forward signaller should be positioned to be able to see clearly into the lower half of the field.
- ❖ Tug pilots may take off and land in different directions according to conditions. The duty instructor and duty pilot must be informed of the tugs intended actions.
- ❖ Only pilots approved by the tug master may fly the tug.
- ❖ Tug pilots MUST adhere strictly to the local noise abatement procedures (LNAP's). Visiting tug pilots must be briefed on, and provided with a copy of the current LNAPs.
- ❖ Hooking the aero-tow towrope on to the glider should follow the following sequence. Tug taxis into position; the weak link should be shown to the glider pilot for inspection and then a "release under tension" check carried out. Finally after confirmation that the canopy and brakes are closed and locked, the towrope should be attached to the correct hook and checked under tension.
- ❖ The launch controller must ensure the area ahead as well as behind the glider are clear during the launch sequence, paying particular care to the approach zone while signalling, "take up slack", the wing tip holder can help with this. The forward signaller relays launch point signals having first satisfied himself that the approach and lower half of the field, when using R/W 24, are both clear. It is the ultimate responsibility of the glider pilot to ensure that there are no obstructions in the visible arc ahead of him and should the wing drop and make contact with the ground, he must pull the cable release immediately.
- ❖ During the initial part of the take off the wing holder should be prepared to run fast. He must support the wing tip without impeding its progress for a longer time/distance than for, say a winch launch.
- ❖ If launching in "X" wind, the **down wind wing** should be supported, preventing the up-wind wing lifting and weather-cocking during the early part of the takeoff roll.

LOG KEEPING

THE KEEPING OF AN ACCURATE LOG OF ALL AIRCRAFT MOVEMENTS IS VITAL

We cannot expect new and inexperienced members to do this – not only are they unfamiliar with who is who, they don't know one aircraft type from another! The price structure is quite complex and this very responsible job has to be carried out in a responsible manner.

If we do not ensure that any log keeper is able to do the job properly, then the club is likely to lose money in unpaid fees, and fail to keep an accurate history of aircraft use, which is a BGA requirement.

It also causes a great deal of extra work for those dedicated few who perform the thankless task of log balancing. . A copy of log procedures will also be found in the **Duty Pilot Manual this will be regularly updated.** If in doubt please refer to this manual or to the log balancers.

Prices of launches will be kept in the launch vehicle and will be regularly updated.

Be careful to fill in the appropriate form for air experience flights, copies of these should be found in the launch vehicle together with publicity material and information regarding prices for return visits for temporary members.

Do not confuse the **air experience temporary membership form** with the **application for membership form** they are different. This publicity material should also be found in the rack on the right hand wall of the entrance corridor of the clubhouse, and will tell you everything you need to know about prices etc for air experience flying.

The Duty BI is now responsible for the final correct processing of paperwork, and he should check that this is correct before the air experience flight takes place. There are a number of vouchers in circulation and it is vital that they are placed in the envelope at the end of flying. Loss of a voucher could mean the loss of revenue to the club of over £100

IF YOU ARE UNHAPPY ABOUT DEALING WITH VOUCHERS PLEASE ASK.

THE DUTY PILOT

Who / what is the duty pilot and what does he/she do? The duty instructor is responsible for all aspects of running the field. As he/she spends most of the day in the air teaching pupils to fly, he/she does not have the time to attend to ground organisation. The duty pilot is there to take on this burden on behalf of the duty instructor. He/she has the full backing of the duty instructor and is acting for him.

The duty pilot is therefore the manager of the field for the day, using the authority designated to him/her by the duty instructor.

What should he/she be doing? In a perfect world - nothing! In Utopia he/she would be managing a club full of highly motivated, highly trained pilots and he/she would just watch the gliders launching in a precision operation that runs like clockwork.

In reality he/she often has a group of people with varying skills and experience, and a load of kit which is often prone to breakdown at the drop of a hat despite the best efforts of, unfortunately, a dedicated few. The duty pilot has to manage this to the best of his/her ability to give the maximum amount of flying for all, making the best use he/she can of the facilities available.

To help the duty pilot, please give attention to the following: -

- All pilots, including private owners arriving at the field to fly should put their names on the flying list remembering to sign that they are medically fit to fly. If they have to leave before hanger packing is completed at the end of the day then they should advise the duty pilot of this. The duty pilot cannot manage the field if he doesn't even know who is there and for how long.
- Please arrive early and help to get things ready. We should be flying by 09:30.
- If the duty pilot assigns you a task then please continue with the task until relieved. **DO NOT LEAVE IT HOPING SOMEONE ELSE WILL TAKE IT UP.** A good duty pilot will take care to allocate, and rotate tasks.
- Glider retrieve vehicles are to be positioned to one side of the field approximately where the gliders are landing. It is important to have a tractor immediately available to pull gliders clear of the aero-tow line in order that the tug does not use fuel and engine time while a glider is removed from its intended take off path.
- **At this time the tug costs around £130 per hour to operate, we cannot waste valuable fuel and engine hours by delays at the Tug launch Line**
- Pilots who are about to launch should be ready with checks completed when the cables arrive at the launch point.

Attention to these simple points can dramatically increase the launch rate. This means more flying for all and more revenue to buy you a nicer club glider, or something that breaks down less often.

IT CONCERNS YOU.

Treat each launch as urgent. If we want to maximise our flying then it is!

Try to help the duty pilot. Things will still go wrong, but he is doing the job to the best of his ability and remember, it will be your turn soon.

Our objective is to achieve the maximum amount of safe flying. We hope that you will share this objective and support us in it.

HOW TO BE AN EFFECTIVE DUTY PILOT

So your name has been added to the duty pilot's roster. It is not an easy job. These notes have been compiled to try to help you perform your duty well, for both your benefit and that of the duty instructor that you are rostered with. **Do read and be familiar with the procedures, and read the Duty Pilot Manual** an up to date copy will be kept in the launch vehicle.

There is never the right balance of people, equipment may break down, things will go wrong and people will never be where you want them to be when they are needed. Do the best you can, no one can ask more of you than that? You have a very important job. If we have an effective duty pilot, the launch rate could be double that of a day when a poor duty pilot is rostered. Don't be that poor one. Here are a few hints to make you the good "DP":

DUTY PILOT

If for any reason you are not able to attend on the day that you are rostered, please find a replacement from other pilots on the roster.

PUNCTUALITY

Get to the club in good time aim to be first. The day starts with you organising other members in getting things going. This is your first chance to save time! Every minute saved increases the chances of another safe launch for someone.

GETTING STARTED

Aim to get the first launch away by 09:30. Although it may seem hard to believe it is quite possible at times to start even earlier. Many other clubs do - why shouldn't we?

THE WINCH

Get the first authorised winch driver that arrives to DI the winch. Organise another to drive the cable retrieve, vehicle and get them to DI and refuel this. Make sure that when the field layout has been finalised by the duty instructor they are aware of it and that they also do a cable inspection, which **is a BGA operational requirement**. All of this needs to be completed by the time the launch point has been set up so get these jobs going first as they can take ages!

THE VEHICLES

You will need at least three people to unpack the hangar, and the next one or two people to start to DI and refuel the other vehicles. Avoid having people hanging about the hangar when they can be positioning the winch or launch vehicle.

THE AIRCRAFT

When you have sufficient people to safely unpack the hangar get out as many gliders as are appropriate for the numbers present on the day. More can always be unpacked later if needed. It is a good idea for those arriving conveniently late to find that they do have to do something to help after all! Get the gliders DI's complete and **fill out the book**. Remember canopy cleaning, vacuuming and batteries. Parachutes are a part of DI and should be available for every seat. Private owners should assist with all of the above - they need the winch, etc. too! However you should ensure that they get help to rig in return. Avoid doing a job yourself, you are there to organise things. Better to organise properly than do a poor DI while trying to organise.

THE LAUNCH VEHICLE

Make sure that there is no rubbish in it - the last DP should have removed it to the club bins. Ensure that the flying list, temporary membership forms, and flying log are in it (it encourages late arrivals to join the work force and not loiter around the clubhouse). Ensure signalling bats are available in the event of radio failure.

THE FIELD

Ensure that the duty instructor knows of any badly rutted areas in time for the daily briefing. If an instructor has not turned up by the time you are ready to move everything out then set the field the way you see fit. 90% of the time the field set up is dictated by forecast/actual wind direction, (look at the windsocks) and there is no point in waiting for the duty instructor to make such an obvious decision. Also get someone to move the tyre cart out to the general vicinity of the launch point.

THE PEOPLE

Throughout all of the above process, **always** ask people if they are familiar with the job that you are assigning to them. **NEVER ASSUME**. If they do not know, arrange for an experienced member to show them either at the time or during the day. Continue this process throughout the day. Even if it doesn't help you much now, it will help the next DP or you on your next duty. If everyone does it, we may even get to the point where we have a lot of members who know what they are doing!

THE DAY.

There are a number of simple but essential points that you should ensure are complied with for maximum efficiency:

Glider retrieve vehicles should be positioned approximately where the gliders will finish their landing run, but at the edge of the field. NOTE: THIS DOES NOT SAY AT THE LAUNCH POINT. You will have to repeat this message several times during the day. Tell the first retrieve driver where you want him to wait and get him to repeat this message to the next driver. If the glider lands ahead after a cable break it will probably hold up the next launch. It saves a lot of time if the retrieve vehicle is halfway there before the aircraft has even launched. If there is a crosswind the vehicles should wait on the **upwind** side.

Cable retrieve vehicles should return immediately to the winch to wait for the next tow out when using two cables; or where the parachute is falling during single cable operations. Ensure that the driver knows what to do if there is a cable break and fully understands both the importance and significance of the various winch-to-retrieve light signals.

ALL VEHICLES SHOULD BE DRIVEN AT A SENSIBLE SPEED.

The way to save time is not to drive very fast. This damages your equipment and ultimately will cost both launches and money. We save time by being efficient, not foolhardy. Look at the flying list and assign people to various duties.

The minimum you need is:

- Winch driver
- Cable retrieve driver
- Log keeper
- Glider retrieve driver
- Launch team

The team can be just one person if numbers are low but ideally it should be a cable attacher/signaller, wingtip holder and launch point assistant but this again is not always possible and you can do one or more of these jobs yourself. Lead by example - don't sit around chatting because you've got everybody else working! You won't have their respect. Ensure that having assigned tasks to people you tell them (especially glider and cable retrieve) to keep on doing the job until a relief is provided and not just to leave their post.

THE FLYING LIST.

THE SLOWEST THING AT RINGMER IS **ALWAYS** THE LAUNCH POINT, and this is where the duty pilot is based! The limiting factor on the number of launches made in a day should be the speed of cable retrieve. **IT IS NOT**, the gliders are never ready to go! You need to make sure that the next people to fly are ready to launch and make sure the instructor is not kept waiting for his pupil.

They should be in the cockpit with checks completed when the cable arrives. In the case of instructional flights we should aim for the pre-flight briefing to be complete before this too – (INSTRUCTORS PLEASE NOTE!)

Try to fit duties for pilots around the flying list. Don't have the next person on the flying list doing cable or glider retrieve. Here are a few more pointers that may help:

Give priority to pilots wishing to fly cross-country, with the pecking order related to declared distance. Discuss with them when they want to go and get them away at their preferred time, even if it means pushing someone else back for a moment. *One day you might want this sort of consideration.*

Next priority goes to other badge attempts.

Solo pilots needing a check should be next on your priority. They may only need one flight in a two seater, so get them out of the way, liberating them to fly a solo glider.

Try to then stick to the order on the flying list but don't be too rigid - the launch rate is more important. Think about it and sort it out to the best advantage.

Assign the appropriate importance to trial lessons and mini-courses (Liaise with the duty BI).

TRIAL LESSONS AND TASTER DAYS.

Providing trial lessons is a delicate balance between keeping members happy and visitors too (who are prospective members). Some courses are pre-booked and we have an obligation to fly them as near to the booked time. The duty BI will control his own visitor list by the use of the mobile phone, which will be left in the caravan when he is airborne, leaving the Duty Pilot to control further bookings. Under normal circumstances visitors should be given aerotows.

Casual visitors can be the duty pilot's nightmare and need to be treated more carefully. Assess your visitor and your facilities. Are they a prospective member or simply a thrill-seeker? If you have a spare two-seater and BI available the situation is ideal. Their money is as good as anyone else's for club funds. Even so, on an average day you will only achieve 6-8 launches per hour, of which perhaps only 4 will be trial lessons. Give visitors a realistic idea of when they might expect to fly. It is better to say no, than to say an hour and keep them waiting all day.

Do not forget that all visitors must fill out a temporary membership form and **PREPAY** for the flight, this is a BGA legal requirement for reasons of insurance liability. If it is busy make sure that you assign someone to assist the log keeper with trial lesson and mini-course paperwork. If there is a duty BI on the field he will take responsibility for the visitor including the relevant paperwork, however if he is busy some help with the latter will be appreciated.

Temporary members must show temporary membership forms before being allowed to fly.

Visiting pilots from other clubs must produce their flying log book, home club membership card and medical certificate if wishing to fly solo.

RELIEF

Everyone needs a break. Do not forget to relieve the workers. Two hours should be the maximum for doing a job and if you can rotate people around jobs it helps stave off boredom and lack of concentration. Don't let anyone avoid doing a job at some point in time; try to make sure that everyone does their fair share. Don't forget the winch driver because he is out of sight and don't forget that instructors need a short break too. If people are asking for a break, it's a fair bet that you aren't doing your job too well.

TRAINING.

Throughout the day you should be aware of the standard of the members who are present. The instructors are busy teaching them to fly, but all too often ground training is forgotten. Try to ask experienced members to show newer members various tasks on the field. If someone says "I can't" - **GET THEM TRAINED!** The more people we train today, the better the field will run tomorrow. The launch marshal is there to help you *and* for you to train him to be a duty pilot.

CAN I FLY PLEASE? The duty pilot flies, of course it's only fair. However you must appoint a responsible deputy to mind the shop whilst you do.

ENDING THE DAY.

Don't leave it too late. Try to finish in good time to pack the hangar in daylight and don't forget to load the tyres back on the tyre cart before leaving the launch area. Allow time for washing the aircraft in winter. You should supervise the hangar packing, make sure ALL equipment is back in the right place, that all the keys are returned to a locked key cupboard, that all money has been collected - with everyone paying by cheque and the flight details on the back of a signed cheque - that the end of day report is completed, the lights and heating are off and the clubhouse and gates are locked. Most importantly you should ensure that the duty instructor(s) are safely ensconced in the pub with a pint, if you've done a good job he should pay for yours!! **Once again remember to make a final security check of the field and to fill in the Duty Pilot Report Form, and leaving field checklist, and inform the appropriate person if there are any problems likely to affect the next days flying.**

Well, what sort of a day has it been? You are almost certainly going to be quite tired. If you have organised the field in a reasonably competent manner then everyone appreciates your efforts. Unfortunately they won't always tell you. If you have shouted a few times, do not worry. You cannot, and should not attempt to, please all of the people all of the time. To do this job well you need to start understanding the psychology of management. People actually like to be well organised. If everyone can see that the field has been well organised and the launch rate has been good, then they will walk away happy. If the day has drifted along in disorganised chaos, then they will go home unhappy.

This then, is your job - organisation! You do not have to do everything yourself - you do have to make sure that everything gets done.

Several longstanding members are trying to make sure that other members get better ground training, if we all back this up, then running the field will become easier.

Please read the Duty Pilot Notes a master copy of which is in the launch vehicle. They are designed to help you in your duties and are a summary of the duties required of the Duty Pilot, and will assist you in ground training. Remember the Duty Pilot's job is at least as important as that of the Duty Instructor, and you should be working together to ensure the field is running safely and smoothly. Encourage all club members to read this manual; it is a simplified guide for field ground training.

ACCIDENTS

DON'T PANIC, THINK CLEARLY, THEN ACT DECISIVELY

If someone phones in and reports an accident, get their details so that they can be contacted later to clarify information and give an eyewitness report

Call the emergency services if required

DO NOT MOVE ANY PART OF THE AIRCRAFT OR LAUNCH EQUIPMENT UNTIL CLEARED TO DO SO, OTHER THAN FOR THE ESTABLISHMENT OF SAFETY AND ADMINISTRATION OF FIRST AID

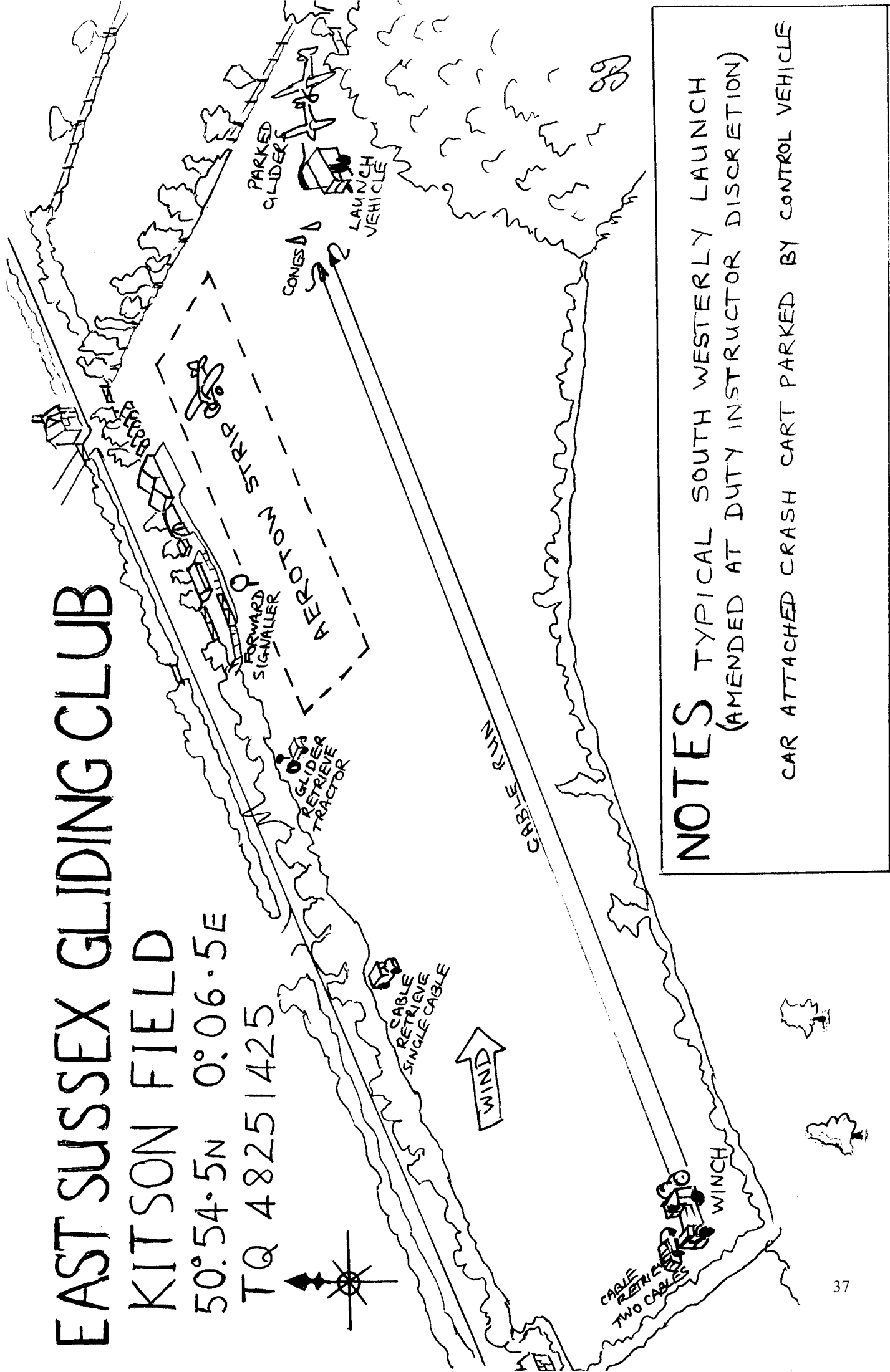
***In the event of an accident,
refer to check list and log in Appendix 1
of the DP Notes in the launch vehicle***

EAST SUSSEX GLIDING CLUB

KITSON FIELD

50°54'5N 0°06'5E

TQ 48251425



NOTES TYPICAL SOUTH WESTERLY LAUNCH
(AMENDED AT DUTY INSTRUCTOR DISCRETION)

CAR ATTACHED CRASH CART PARKED BY CONTROL VEHICLE

TYPE CONVERSION REQUIREMENTS

All "conversions" on to a new type must be approved and briefed by the Duty Instructor. The minimum qualifications for flying club gliders solo are as follows:

Ka 8	There is no minimum number of solo flights required before conversion from the K13. However the pilot must have received back from the BGA his gliding certificate with the "A" endorsement. This is for insurance requirements.
K21 (solo)	Red card holder, glass conversion course
Junior	Red card holder, glass conversion course
Astir	10 flights on Junior

Any pilot converting to a new type must be in current flying practice, including cable breaks.

MUTUAL FLYING

Mutual flying of club two seaters is allowed subject to prior permission from the CFI (written endorsement in log book), and is subject to P1 having Silver C and at least 50 hours P1 and P2 having at least Bronze C.

Initial type conversion and continuing permission to fly a type are at the discretion of the duty instructor who has overall responsibility for the safe operation of the field.

AW Lyth CFI
Nov 2009

ESGC CARD SYSTEM

The club is of a size where it can no longer be assumed that each instructor knows every pupil. Therefore every member is issued with a "flying card" which will show his or her level of achievement within the club.

All flying cards are valid for one year only and expire on March 31 each year. The previous year's card is only reissued after the dual checks known as "winter checks" flown each year usually between January and March.

All card applications are made on the appropriate form; renewal of an existing card on the winter checks form, and upgrading a card on the card application form. Upgrading can be carried out as soon as an instructor has signed up the appropriate qualifications for the desired card in the pilot's logbook. Card applications should be made to the Deputy CFI.

The card should be carried at all times whilst at the club. Failure to produce a current card on demand will result in at least one check flight being required on the day.

All flying, whatever the pilot's card colour, is subject to permission to fly being requested of, and granted by the duty instructor. Such permission will also be subject to:

- 1 -The "currency requirements" outlined below. A pilot who has not flown within this time will require at least one check flight. These requirements must also take into account the flying immediately prior to this period. Flying once within consecutive periods does not render a pilot current. Thus from the table below, a red cardholder must have flown in the past four weeks *AND* have made 12 launches in the four weeks before that.
- 2 -A minimum of one cable break below 500 feet, real or simulated, having been adequately handled within the last 6 months and this fact entered in the pilot's logbook by an ESGC instructor.

The qualifications for each card can be found on the card application form. The privileges of each card and "currency" periods are as follows:

CARD	PRIVILEGES	CURRENCY PERIOD
BLUE	NEW SOLO - daily check at instructors discretion	Daily Check required
RED	Daily check not normally required. Local flying only.	4 weeks / 12 L previous 4 weeks
YELLOW	Can fly x-country with briefing on the day.	6 weeks / 6 L previous 4 weeks
GREEN	Can fly x-country at own discretion.	Duty Instructors' discretion

INSTRUCTORS WILL, IF IN DOUBT, REFER TO THE PILOTS LOGBOOK

David Williams

Chief Flying Instructor 2004

NOTES