



**MINI RED BOOK**  
**GENERAL FLIGHT OPERATIONS PROCEDURES**  
***MONTREAL SOARING COUNCIL (MSC)***

***[www.flymsc.org](http://www.flymsc.org)***

**HAWKEBURY AIRFIELD**  
**(NV4), ONTARIO**

**MONTREAL SOARING COUNCIL**

www.flymsc.org

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**GENERAL**

The keynote to all flying operations is safety and common sense.

Flight operation procedures, quickly referenced on these pages for your convenience, have been established to provide standards of procedure on our airfield.

This document does not replace any official documents and, therefore, it is every pilot's responsibility to acquaint him- or her-self with the contents of the following:

1. Transport Canada Air Regulations and Aeronautics Act.
1. M.S.C. Rules and Regulations (see the MSC Red Book at [www.flymsc.org](http://www.flymsc.org))
2. Pilot Operating Notes (when checking out on a new glider type)

Signed: Chief Flying Instructor - MSC

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## 1. GROUND HANDLING - SIGNALS AND RULES

Gliders that are not to be flown are to be left in their trailers or returned to the hangar.

The person walking the wing of a sailplane and the driver of the towing vehicle are responsible for the glider clearing all obstacles. It must be realized that it is the responsibility of the wing-tip person to steer the glider. The tractor driver must drive slowly enough to allow the wing tip person to properly steer the glider, particularly when the wing tip person will be on the outside of a turn.

In very windy conditions there shall be a person by the cockpit so that he can release the glider in emergency and/or act as a brake if the glider appears to be overtaking the tractor.

Gliders, when parked, should normally have the downwind wing on the ground. Gliders with removable tail dollies shall have the tail dolly removed while parked. In windy and gusty conditions, the upwind wing should be on the ground, weighted down with one or more tires. Gliders with swivelling tailwheels shall also have the tail blocked with a tire.

When a glider is parked on the runway, the pilot who is waiting to fly it is responsible for its safety and must stay with it.

When not to fly again, gliders must be parked off the runway.

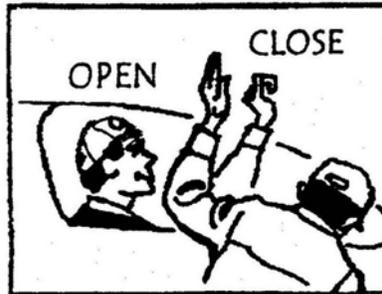
## 2. ATTACHING TOW ROPE

Before the first tow of the day and preferably before each flight, the release mechanism must be checked for correct operation.

The tow rope must never be attached to a glider until the pilot is strapped in and has given the signal to do so.



The person who is going to attach the towrope will then give the 'open' and 'close' signals.



When the rope is attached the rope handler is to give it a firm pull to see that it is properly attached.

The pilot shall release the rope if he (or she, throughout this text), leaves the cockpit for any reason or, in case of an emergency.

There shall normally be only one tow rope per towplane in operation.

Note that the Blanik I-13 requires a special short link with a large ring.

### 3. TAKE-OFF PROCEDURES

The Montreal Soaring Council normally makes use of two persons to assist a glider take-off: one person to run the glider wing and one person to relay signals to the towpilot.

Both persons are responsible to ensure that the take-off is not endangered either by landing aircraft or by obstacles on the runway take-off path.

The glider pilot signals he is ready for take-off by giving a "thumbs up" signal to his wingman.

Wingman signals shall be as follows:



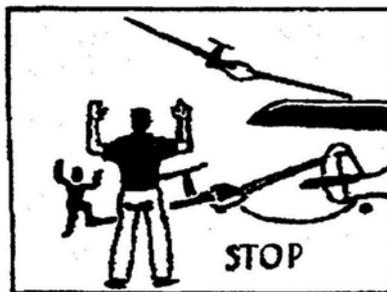
When the wingman sees that the rope is tight he will then give the 'all-out' signal, which calls for the tow-pilot to increase power for take-off.

A) Start take-off roll (keep arm straight):



In the case of an emergency, or to prevent a take-off for any reason whatsoever:

- Put or drop wing on the ground and immediately give the 'stop' signal



- Hold both arms overhead as illustrated (do not wave arms):
- The above signal is repeated by the person signalling to the towpilot
- Pilot responds to signal by releasing towrope.

**NOTE: IF IN DOUBT – READ ANY SIGNAL AS STOP!!!**

The towpilot shall not take off unless he receives the signal to start the take-off roll from his wingman.

The person relaying signals to the towplane pilot must not start signalling on his own initiative but must only repeat the glider wingman's signals, except in cases of the emergency stop signal.

It must be realized that the towplane relay signaller is in a better position to see any aircraft on the final approach than the glider wingtip man.

**IF IN DOUBT – ASK YOUR INSTRUCTOR!!**

#### 4. RELEASING FROM TOW

When the required height is reached the normal procedure is for:

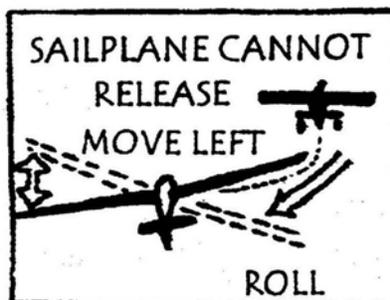
- A) The glider pilot to ensure that the airspace is clear to the right and then release by pulling the release knob twice and ensuring that release has occurred by watching the departing towrope and/or towplane. He clears his aircraft visually to the right and then commences a slight climbing turn to the right.
- B) The towplane pilot, after verifying that the glider has indeed released, commences a turn to the left followed by throttling back procedures before starting his descent.

#### 5. EMERGENCY PROCEDURES- TOWING

- A) Towplane in difficulty – towplane rocks wings, the signal for glider pilot to release immediately!



- B) Glider cannot release - glider flies out to the left of the towplane and rocks wings. Towplane will proceed to position over the airfield and release the glider. The glider will then make a higher approach than usual to avoid possible rope snagging.



- C) Airbrakes Open - Towplane pilot will waggle rudder as a signal to the glider pilot that the climb rate is low and that the glider pilot must immediately check that the airbrakes are closed and locked.



- D) Rope break - glider pilot will pull release knob twice to ensure rope end is released. If below 300 feet, glider will land straight ahead; above 300 feet, turn 180 degrees to land downwind, or fly an abbreviated circuit, landing into wind.

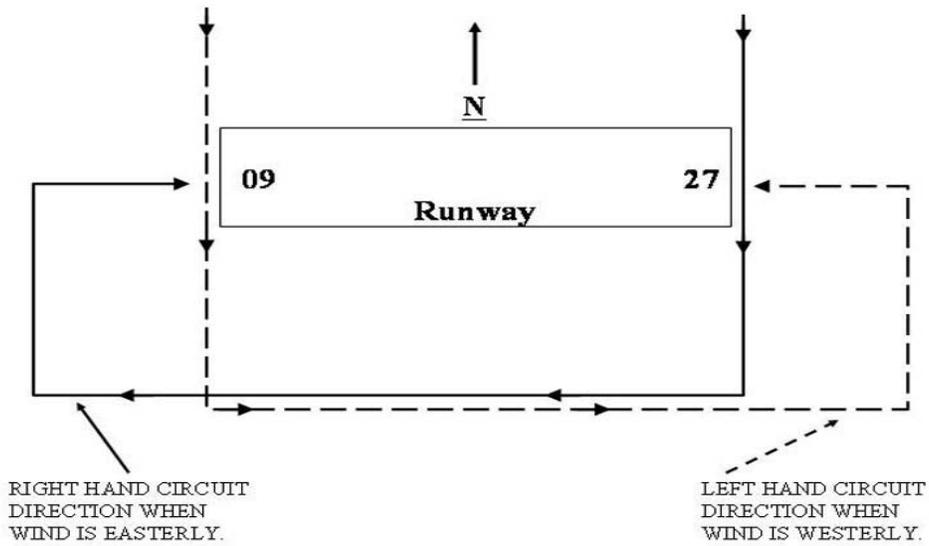
**DO NOT ATTEMPT TO BREAK THE ROPE WITH A JERK THROUGH PULLING UP ETC.!**

## 6. AIR TRAFFIC PROCEDURES

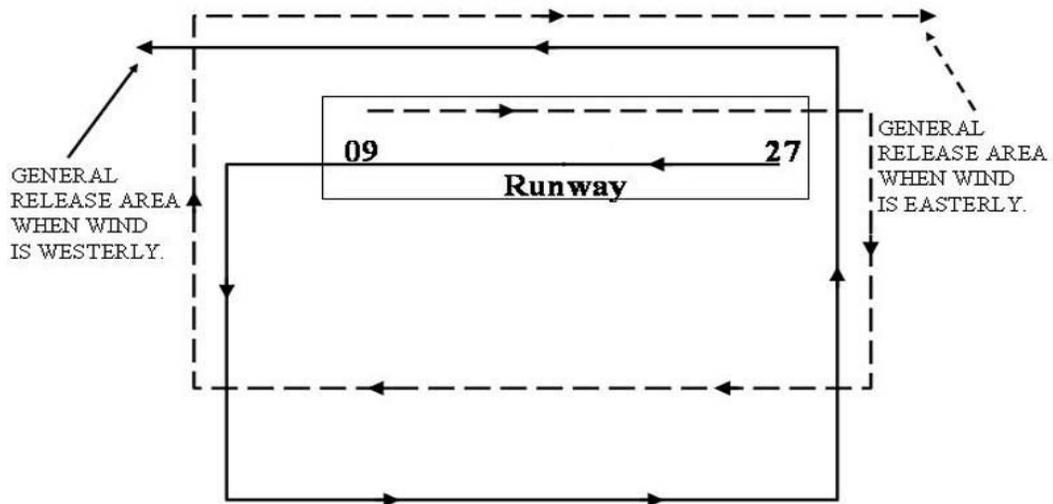
It shall always be the pilot's responsibility to ensure safe operation of his aircraft and he is required to be acquainted with all applicable rules and regulations.

The following sections contain diagrams explaining the air traffic procedures maintained at the Hawkesbury airfield.

### 7. LANDING CIRCUITS



### 8. TAKE-OFF CIRCUITS



## 9. NORMAL TAKE-OFF PROCEDURES

- A) All take-off circuits shall be rectangular, and in such a way that both towplane and glider remain within comfortable gliding distance from the airfield.
- B) The towplane pilot shall keep a sharp lookout for other traffic since he is clearing not only his towplane but also the glider. The glider pilot being towed must also maintain an independent lookout during the tow and release if there is a risk of collision with other traffic.

## 10. NORMAL LANDING PROCEDURES

- A) All glider landing circuits should commence at a point over the upwind end of the runway as shown on the chart on page 8 at a height of not less than 800 feet above ground (976 feet A.S.L.).
- B) A rectangular circuit shall be followed from the above mentioned starting point with the turning points of each circuit leg to be at a height which ensures normal continuation of the circuit.

It is recommended that the turning points be at a height which keeps the runway touch-down area at an angle of 30 to 45 degrees to the horizontal.

- C) In all cases, the final turn shall be completed at a height of not less than 200 feet above ground. Landings shall normally take place south of the take-off line and never short of the 'T' marker.

## 11. LANDING MARKERS

The 'T' marker, which is positioned at the threshold of the active runway, indicates the direction of landing.

If the 'T' marker has been moved to a different runway from the one used for take-off, you are to land at the 'T', except by prior arrangement.

### IMPORTANT RUNWAY MARKERS

A double runway borderline marker indicates the beginning or the end of the useable runway.

No landing shall take place undershooting or overshooting the usable runway unless it is an emergency or special training flight.

## 12. SOARING FLIGHTS

When more than one glider joins the same thermal, the circling direction of the first glider in the thermal indicates the circling direction for all gliders.

N.B.: Flying at locations other than Hawkesbury will be dealt with separately.

NO AEROBATICS ARE PERMITTED IN MSC GLIDERS AT ANY TIME EXCEPT FOR THE USUAL TRAINING EXCECISES.

### 13. REQUIREMENTS TO OPERATE GLIDERS

Minimum operating requirements are as follows:

- A) One authorized instructor or licensed pilot responsible for operations (see responsible pilots list).
- B) One authorized towpilot.
- C) Three members.

NO FLYING SHALL TAKE PLACE UNLESS THE ABOVE 3 MINIMUM REQUIREMENTS ARE MET, OR SPECIAL ARRANGEMENTS ARE MADE WITH THE C.F.I. OR HIS ASSISTANT.

- D) In addition, the holder of a student pilot permit who is authorized to fly solo may only do so when there is an authorized instructor at the airfield.

### 14. TOWPLANE PROCEDURES - GENERAL

This operation is under the jurisdiction of the Chief Tow Pilot (C.T.P.) who, in turn, will be responsible to the Chief Flying Instructor (C.F.I.).

Since this is a specialized facet of our operation, special rules and regulations apply, and are communicated separately to tow pilots.

### 15. DISCIPLINARY MEASURES

Any instructor, having observed negligence by a pilot of not flying in accordance with the safety standards set out in the Rules and Regulations, is authorized to administer disciplinary measures aimed at correcting the unsatisfactory flying practice of the member in question.

These measures are normally administered, and received, in the good spirit of a flying club; but, where such measures are contested, the following levels of authority shall deal with the case and produce a just ruling as is necessary.

- 1<sup>st</sup> – Instructor of the day and his team.
- 2<sup>nd</sup> – C.F.I. and instructors of the day.
- 3<sup>rd</sup> – C.F.I. and Instructor Sub-panel.
- 4<sup>th</sup> – C.F.I. and Full Instructors Panel.
- 5<sup>th</sup> – Directors and Instructors Panel.
- 6<sup>th</sup> – Appeal to a General Meeting (This ruling is final and binding)

## 16. CARS ON THE FIELD

Cars are allowed on the runway for the sole purpose of bringing gliders to the take-off line, and retrieving gliders from the runway.

Cars shall not be driven on the runway when the airfield is soft, particularly in spring and fall.

## 17. FLIGHT LINE MANAGERS

**\*\* Please give them your total support! \*\***

The Flight Line Manager is a flying member who is in charge of the smooth running of the flying operations on the airfield.

He is the Duty Instructors' assistant on the ground and directs all ground operations.

## 18. IN CASE OF AN ACCIDENT

- 1- Call an ambulance
- 2- Do not remove crew members if not absolutely necessary; leave this to trained medical specialists.
- 3- Contact the C.F.I. or his assistant immediately.
- 4- Do not release or volunteer any information until the C.F.I. has been contacted and consulted with respect to further procedures.

### Important Phone Numbers

Police: 911 (Life threatening emergency) – 632-2729 or 1-888-310-1122 (Non emergency)

Fire: 632-4111

Ambulance: 632-7048

## 19. SPECIAL NOTICE

The main reason for the relatively low cost of flying with M.S.C. is the fact that every member lends a helping hand.

The rule of helping each other is paramount to our success as a flying club.

The philosophy of putting back into the club some of the benefits you receive from it and from your fellow members will continue to assure the lowest possible cost and, in addition, will give you a great feeling of belonging to a successful group of enthusiasts.

## APPENDIX I: FLEET PROGRESSION

### 1. Basic Training to Licence and Local Flying

Step	To Do This...	In This Aircraft...	You Must Do This
1	Basic Training (SAC Pre-Solo Curriculum)	Krosno, L-23 (and L-13, if demand is high)	No pre-requisites. Flights are limited to 30 minutes.
2	Initial Solo Flying	Student's choice, or whichever aircraft is available, of Krosno or L-23.	<ol style="list-style-type: none"> <li>1. Hold a Student Pilot Permit (issued during basic training) and Radio Operator Permit.</li> <li>2. Fly with, and be recommended by, 2 instructors, the last of whom must be Class I.</li> <li>3. Flights are limited to 30 minutes except when applying for B or C badge.</li> <li>4. Must have a dual flight every 5<sup>th</sup> flight.</li> </ol>
3	Post-solo Training (SAC Post-Solo Curriculum)	Whichever aircraft is available of Krosno or L-23 (at least one flight in Twin-Astir)	<ol style="list-style-type: none"> <li>1. Must have completed a minimum of 5 initial solo flights.</li> <li>2. Complete a minimum of 5 dual flights (These may be mixed with additional <u>solo</u> flights in Krosno or L23)</li> <li>3. Flights are limited to 30 minutes.</li> </ol>
4	Pre-License Solo Practice	PW-5 Local Flying (L-13 Solo Local Flying)	<ol style="list-style-type: none"> <li>1. Must have done 3 observed solo circuits and landings in L-23 or Krosno.</li> <li>2. Minimum of 15 flights in PW-5, with dual check flights every 5<sup>th</sup> flight.</li> <li>3. When completed and satisfactory, License Flight Test and application. Ground School or equivalent training required.</li> <li>4. Two check flights for solo flying in L-13 may be requested during the duration of this stage.</li> </ol>
5	Upgrade to next Glider for Local Flying	Fleet Progression is as follows: <ol style="list-style-type: none"> <li>1. Astir</li> <li>2. DG-300/303</li> <li>3. LS-1</li> <li>4. Twin Astir</li> </ol>	Common requirements for upgrades to next glider: <ol style="list-style-type: none"> <li>1. A minimum of 10 hours and 15 flights in lower grade glider including five satisfactory observed circuits and landings. Three observed good landings must follow any poor landing in this sequence.</li> <li>2. One successful check flight in Twin-Astir with Class I instructor.</li> <li>3. Briefing and oral exam on type, rigging/de-rigging procedure by instructor signed in logbook.</li> </ol>

## 2. Cross-Country and Passenger Carrying

Step	To Do This...	In This Aircraft...	You Must Do This
1	Cross-Country Training (Cross-Country Group Curriculum)	L-13 and Twin- Astir	<p>Must have licence. Exercises include: precision box landings, advanced thermalling, local triangles within gliding range of surrounding airfields, etc.</p> <p>(Duration and curriculum T.B.D.)</p>
2	PW-5 Cross-Country Approval	PW-5 Cross-Country Flying	<ol style="list-style-type: none"> <li>1. Must have completed Cross-Country training curriculum.</li> <li>2. Must have a minimum of 15 flights and 10 hours including 5 observed precision circuits and landings in the PW-5.</li> </ol>
3	Advanced Cross-Country Approval	Glider types above PW-5	<ol style="list-style-type: none"> <li>1. Must have achieved Silver C Distance or higher with one out-field landing in PW-5.</li> <li>2. Must have a minimum of 15 flights and 10 hours including 5 observed precision circuits and landings in the glider type intended to be flown cross-country.</li> <li>3. For the Twin-Astir, additional CFI's approval required, based on cross-country experience.</li> </ol>
4	Passenger Carrying Approval (from front seat)	Two-Seaters as available <ol style="list-style-type: none"> <li>1. Krosno and L-23 have priority for initial training</li> <li>2. Twin-Astir has priority for cross-country training</li> </ol>	<ol style="list-style-type: none"> <li>1. Must have achieved Silver C Distance or higher with one out-field landing.</li> <li>2. Must have a minimum of 15 flights as P1 and 10 hours in the glider intended to carry passengers.</li> <li>3. Must do a passenger carrying check flight with a Class I instructor in each glider intended to carry passengers.</li> </ol>
5	Back-Seat Flying Approval	All two-seaters	<ol style="list-style-type: none"> <li>1. Must have a minimum of 30 flights as P1 and 20 hours in the gliders intended to be flown from the back seat.</li> <li>2. Must do a back seat check flight with a Class I instructor in each glider intended to be flown from the back seat.</li> </ol>

**Common requirements for upgrades to next glider**

- A minimum of 10 hours and 15 flights in lower grade glider including five satisfactory observed circuits and landings. Three observed good landings must follow any poor landing in this sequence.
- One successful check flight in Twin-Astir with Class I instructor.
- Briefing and oral exam on type by instructor signed in logbook.

**Common requirements for flying cross-country in a glider**

- Completion of Advanced and Cross-Country Training with signatures in logbook.
- Holding a Glider Pilot License.
- 5 observed circuits and landings with cross-country criteria used for evaluation.
- A minimum of 10 hours and 15 flights in glider type required for cross-country.
- For all single-seaters, except the PW-5, Silver-C distance required with one out-field landing.
- For the Twin-Astir, the CFI's approval is required, based on cross-country experience.

**Common requirements for carrying passengers in a glider**

- Holding a Glider Pilot License.
- Completion of Advanced and Cross-Country Training with signatures in logbook.
- Silver C distance achieved with one out-field landing.
- A minimum of 10 hours and 15 flights as P1 in glider type required for passenger carrying.

**Guidelines to be used for experienced members**

Members from other clubs should be treated differently from the above. Their progress should begin with a discussion on their experience and log-book examination by a Class I instructor followed by a check flight with a Class I instructor. Based on the results of this flight and their past experience, the Class I instructor will determine the level at which the individual can start and progress at MSC. In any case of doubt further check flights may be required.

Power pilots with no previous gliding experience will be required to follow the usual student progress sheet training. Their progress can be expected to be rapid but particular attention must be directed at towing and circuit procedures.

**APPENDIX II: CURRENCY REQUIREMENTS**

	<b>Required currency</b>	<b>Description</b>
1	Biannual check (*)	To satisfy Transport Canada requirements for a recurrent training program standard, all pilots are required to complete a flight review with an instructor every 2 years.
2	Season check	At the beginning of every season and before flying at MSC, all pilots, including private owners, are required to successfully pass a check flight with a current instructor (including the verification of the license and medical validity and expiry dates).
3	Passenger carrying currency	Every pilot intending to carry passengers in a glider must have completed 5 solo takeoffs and landings or 2 flights with an instructor in a glider in the 6 months preceding the passenger carrying flight.
4	Currency for cross-country	Every season and before flying cross-country in an MSC glider, the pilot must have done a minimum of 5 local glider flights including at least one in the type intended to be taken cross-country.

(\*) License, solo or season check flights fulfill the requirements for the biannual check flight.

### **APPENDIX III: STUDENT PILOT PERMIT**

A student pilot permit allows its holder, once having reached a satisfactory skill level, to fly solo under the supervision of an instructor.

The permit must be obtained prior to solo flying and maybe requested from a designated authorized person after having fulfilled the following requirements:

- 1- Having completed a minimum of 15 training flights.
- 2- Having successfully completed the club's pre-solo exam (see your mentor instructor for guidance)
- 3- Having obtained the radio operator's permit.

The authorized person will require a proof of citizenship, a self-signed medical declaration and will then issue a student pilot permit and apply for a category 4 medical certificate.

### **APPENDIX IV: RADIO OPERATOR CERTIFICATE (AERONAUTICAL)**

A radio operator certificate (aeronautical) is required by the operator of radio equipment on board aircraft and at an aeronautical land (fixed or mobile) radio station.

A self study guide is available from download from the club's website. The applicant must successfully complete an exam administered at the club by an Industry Canada designated examiner prior to applying for the certificate. The certificate has no expiration date.

### **APPENDIX V: GLIDER PILOT LICENCE**

The following steps are to be followed in obtaining a glider pilot licence:

- 4- Attend the Ground School course offered by the club.
- 5- Successfully complete the club written exam and obtain recommendation letter to write Transport Canada exam.
- 6- Successfully complete Transport Canada written exam with a minimum passing mark of 60%. The exam is valid for 24 months.
- 7- Within 24 months of the licence application date, must have completed 6 hours of total flight time in gliders, including one hour dual and two hours solo and a minimum of 20 takeoffs and landings.
- 8- Request a completed license application form the designated authorized person.

## APPENDIX VI: CHECK LISTS

In order to ensure safety during flight it has become an established practice in all flying activities to develop and use check lists at all important phases of a flight. It is recommended that you learn these as soon as you start your training. Your instructors will expect you to know them and to use them without prompting. Try not to do the checks simply by rote, but think about them, why you do them and what you are looking for. You will soon realize that some items in the checklists do not apply to the glider that you may be flying. This is quite deliberate and is intended to get you into the habit of considering items that may concern you later, as you progress to other glider types. For example, none of the training gliders carry water ballast but we hope that one day you will graduate to a glider that can carry water. Most such gliders are not allowed to land carrying full water so if you have conscientiously carried out the SWAFTS pre-landing check you will automatically recognize that wind, wheel, and WATER now all apply to you.

### Lookout and Location

Before you started flying you lived in a two dimensional world and keeping a good lookout was primarily concerned only with the road in front of you, with occasional glances to the sides to ensure that no traffic was coming towards you from a side road. In flying there are no confining roads to restrict where you may make a turn. When your instructor says, "Make a turn to the right," you can do it immediately without waiting to come up to a side road. However, there may be another glider, or powered aircraft, just where you make the turn. This means that you have to be constantly vigilant and keep a good lookout before you turn. In this new three-dimensional world you also have to be aware that other aircraft will not all be at the same altitude as you, so you must look up and down as well as to the sides. Throughout your flights you must be scanning constantly for traffic. Don't simply swivel your eyeballs but turn your head as far as it will go, both right and left. It is a good idea to force yourself into the discipline of turning your head as far to the left as possible and then scan at horizon level all the way across until your head is as far to the right as it goes. If you think about the geometry you will realize that the most potentially dangerous aircraft are those at horizon level, as these are at your altitude. Such scanning is vital to your survival. Remember that we are not alone in the sky; there are jets out there that may have a closing velocity of over 400 miles/hour so every second they are nearly 600 feet closer. It is vital that you develop the good lookout habit early in your flying career.

When you start soaring in thermals you may be within a couple of wingspans of other gliders and this can only be safe if all pilots maintain a good lookout. At the end of good day's soaring your neck muscles should ache or you have not been maintaining a good lookout!

Your early flying will always be carried out within easy range of the airfield and it is very important that you quickly learn the local landmarks so that you always know where you are. Remember that you have to terminate your training exercises in a good location to start your circuit for landing. In a glider you cannot turn on the power to maintain height while you take a look around to find the airfield. You have only one shot, so get into the habit of combining your location check with your lookout scanning. It is particularly important to be aware of your exact location while you are on tow. Just because you are at the release altitude you must not release if it is not safe to do so. The towpilot may have towed you downwind of the airfield on a windy day (forgetting that you are in a low performance glider) and it may be in a location where it is not possible to get back and make a normal circuit and landing. In this case you should hang on until you are in a safe place. If necessary you can signal the towpilot by using the procedure that your instructors will explain, or by using the radio.

## CHECK LISTS

### **Walk Around: (Glider on take-off line)**

- A = Airframe, simple walk around to ensure no damage since last flight. If this is the first flight of the day check the DI book. There is no requirement to touch the control surfaces.
- T = Tailwheel. For Blaniks ensure that wheel is aligned in flight direction. For gliders with a removable tailwheel, make sure that the wheel is removed
- B = Ballast. Check the placard loading diagram to see if you need ballast weights. Check to ensure that only the required weights are properly installed. (In the case of the Krosno when no ballast is required the weights are to be returned to the flight line trailer but the securing bolts are to remain screwed in place in the glider).
- C = Control check. Before getting into the glider check that there are no objects that could foul the controls, and then check the controls. Move the stick to its extremes and visually check the control surfaces. (Note: If the flight is to be solo in a two seater it is the pilot's responsibility to ensure that the rear cockpit safety harness is secured and that there is no possibility of the seat, or seat cushions, moving so that the controls could be fouled).

**Cockpit check: (Prior to flight)**

It is a waste of time to get in the cockpit and start the cockpit checks without first ensuring that you will be comfortable and able to reach all the controls, including the release, radio switches etc. For this check to be valid you should do up your straps to ensure that they do not restrict your reach. Also make sure that you are seated high enough in the cockpit to be able to have unrestricted view over the nose, while maintaining adequate headroom. To do this you should close the canopy. It is better to find out now that you need to make further adjustments rather than to wait until the last item of the formal check has been completed. You may now open the canopy again if so desired. (It is recommended that you should purchase your own cushions, as required, so that you will always be prepared with the right ones and thus ensure that you will always have the same seating position). Now you are ready to proceed with the formal checks.

C = Controls, check for full & free movement. If you are flying dual you must ensure that the other pilot is already seated. (There is no requirement to look at the control surfaces as you did that previously during the walk around).

I = Instruments, altimeter set, all reading sensibly & electrical units switched on, as required.

S = Straps, lap strap low and tight, both cockpits.

T = Trim & Ballast, trimmer set for take-off. Ballast installed as necessary. (Should have been checked during the walk around, good idea to confirm that it is OK).

R = Release, function feels normal; if a two seater make sure that the rear cockpit release is also checked. Do not hook up until ready for take-off.

S = Spoilers (Airbrakes) and Flaps. Check function of Spoilers or Airbrakes control then confirm closed and locked. If flaps are fitted check operation and set for take-off.

C = Canopy, check closed and locked. If a two seater make sure that the rear canopy is also confirmed closed and locked. Now carry out a final quick control check to ensure that nothing has caught in the canopy that could prevent full control movements.

O = Options. Think now about what you will do if you suffer a rope break or other emergency prior to reaching safe altitude.

**Over the fence checks: (On commencement of climb out)**

A = Airbrakes closed and locked.

F = Flaps, as required.

I = Instruments reading sensibly.

T = Tow, appears normal.

**Pre-Release Checks: (When ready to release from tow)**

L = Location. Make sure that you know where you are, particularly in relation to the airfield.

P = Position. Make sure that you are in a good tow position without excessive load on the towrope.

L = Lookout. Ensure that no other aircraft are in the immediate area; make sure that you check first to the left and then to the right.

**Post-Release Checks: (Immediately after release from tow)**

T = Trim. Set trim for your desired airspeed.

W = Wheel. Retract the wheel (where applicable).

F = Flaps. Set flaps as required (where applicable).

S = Spoilers/Airbrakes. Confirm closed and locked.

**CALL check: (Prior to aerobatic maneuvers)**

C = Cockpit, no loose articles, straps tight, window closed and canopy locked.

A = Altitude, adequate for planned maneuvers to be completed with adequate margin.

L = Location, not over the airfield or an inhabited area.

L = Lookout, make sure that no other aircraft are in or approaching the area by doing 'S' turns, and NOT by circling.

**Pre-landing Checks: (Prior to entering circuit for landing)**

S = Straps, secure, both cockpits.

W = Wheel extended, Water ballast dumped, Wind direction checked.

A = Airspeed, choose to suit conditions, trimmer set.

F = Flaps, selected as necessary.

T = Traffic, check for other aircraft, particularly lower than you.

S = Spoilers/Airbrakes, quick check of operation then close and lock.

**Post-Landing Checks: (After glider has stopped)**

S = Spoilers/Airbrakes. Closed.

F = Flaps. Closed.

S = Switches. Master switch OFF. (If there is no master switch then switch off the individual items.

C = Controls. Where appropriate secure controls.

C = Canopy. Closed and locked.