

MSC RED BOOK

FLYING REGULATIONS

2011 Version

MSC MISSION

MSC's mission is to promote the sport of soaring in all of its aspects. It endeavours to train, support and encourage its members to participate in all aspects of the sport, from basic training, to FAI badges and competition flying in an atmosphere of:

- **SAFETY**
- **GOOD SPORTSMANSHIP**
- **CAMARADERIE**

INTRODUCTION

This book is a compilation of rules and procedures evolved over 55 years in order to run a safe and smooth operation. It is to be interpreted in that spirit and not in a legalistic frame of mind. Should you require any interpretation please contact the Instructor of the day or the Chief Flying Instructor.

It is organized by type of activity for ease of reference and is a complement to SAC's "Soar Instruction

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.

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1. FLYING OPERATION

1.1 REQUIREMENTS FOR OPERATION

1. The minimum number of members for club operation at home site is five members composed of:
 - 1 authorized responsible person
 - 1 authorized tow pilot
 - 3 members
2. The authorized responsible person takes charge of the operation and arranges for the functions of Flight Line Manager and timekeeper to be filled by members present.
3. No student or (holder of a student pilot permit) shall fly when there is no instructor present.
4. For normal operation, those duties are filled according to the duty roster for Instructors, Tow Pilots and Flight Line Manager, the Instructor's team leader being in charge of the operation.

1.2 STARTING THE FLYING DAY

1. NAV Canada 1-800-633-1353 is contacted, requested to open zones A, B and C. and the authorizations are recorded in the Zone book in the clubhouse as well as at the flight line chalk board & flight sheets.
2. The hangar is unloaded with care and gliders are cleaned if necessary.
3. Aircraft to be flown get their daily inspection by experienced members and are properly signed off. Batteries placed in gliders should have their hangar chargers turned off when not in use.
4. All gliders are to be located according to active runway. All gliders that are not to be used must be put back into the hangar during the flying day.
5. The flight line trailer is opened with the flight sheets, cash box, daily flight list, and necessary forms. The radio is turned on. The supply of towropes, short links and rope handling sticks is to be checked.
6. The names of the instructors or responsible person, tow pilots and Flight Line Manager are recorded on the flight sheet.
7. The glider tow tractors shall be gassed up and oil checked. Avgas and SAE 30 oil are used for the small glider tractor and is inserted in the dip stick pipe. Oil is stored in the red well building. Fuel mix for the golf cart is located in the back of the gas pump. Use 2 cycle 40 to 1 mixture (500 ml oil to 20 liters of aviation gas. Mix in red container.

1.3 DURING THE DAY

1. The number signed by the members in the daily flight list book determines the order of flight. Once the flight is completed a new number can be assigned. The number is valid until flown but members should stay around to help.
2. Cross country and badge attempt flights may get preferential treatment. The takeoff board in the flight line trailer determines the take-off order. A pilot wishing to fly prints their name on the chalkboard along with the A/C they wish to fly. It is then placed on the flight rack. The top line is for those ready to fly and the other rows are standby. Red boards indicate Krosno, Green indicate L33, Yellow indicates Astir Single, ASW24, DG 300, Twin, Silver Blanik and White Private. The Flight Line Manager selects the take off order by selecting the lowest arrival number. It is then placed on the top line of the take-off board, which also indicated the order of take-off.
3. Gliders should not be positioned in the take off line unless the pilot is present and ready to fly. It is customary to use two lines.
4. Only trained persons can hook up towropes and/or run glider wings and it should never be done without the pilot's permission.
5. For takeoff, 2 signalling persons is normally required, one being the wing runner checking above and ahead, checking all around as well before taking the wing. The 2nd signaller stands by the runway ahead of the tow plane checking above and behind and relaying to the tow pilot. Only trained members should handle this job.
6. If any emergency or danger should arise, the take off should be aborted by giving the stop signal with both arms stretched upward.
7. After landing, gliders should be removed swiftly, taken across and off the runway first, then to the line or parking area. If impossible, they should be rotated across the runway to occupy less room, and then pushed off as soon as possible.
8. For that purpose, the tow vehicles should always remain around the flight line trailer.
9. Members on duty should never leave the field without having transferred responsibility to a replacement.
10. All flights should be recorded on the daily flight sheets. These sheets should also indicate the names of the instructor or responsible person, tow pilots and Flight Line Manager.

1.4 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 tail wheels 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.

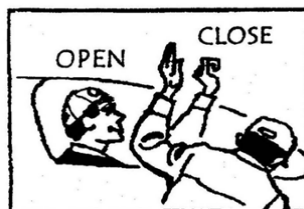
When not to fly again, gliders must be parked off the runway.

A. 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.

B. 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



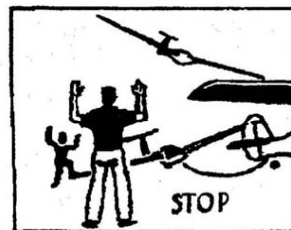
When the wingman sees that the rope is tight he will then give the ‘all-out’ signal, which calls for the towpilot to increase power for take-off.

- 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!!!

C. RELEASING FROM TOW

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

- 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 tow plane. He clears his aircraft visually to the right and then commences a slight climbing turn to the right.
- 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.

D. EMERGENCY PROCEDURES- TOWING

- Tow plane in difficulty – tow plane rocks wings, the signal for glider pilot to release immediately!
- Glider cannot release - glider flies out to the left of the tow plane and rocks wings. Tow plane 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.
- Airbrakes Open – Tow plane 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.
- 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.

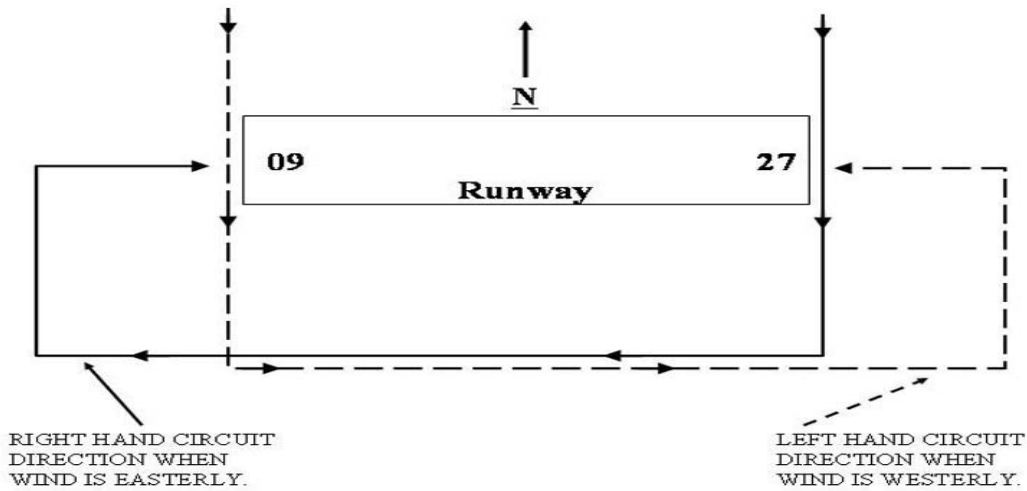
E. AIR TRAFFIC PROCEDURES

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.

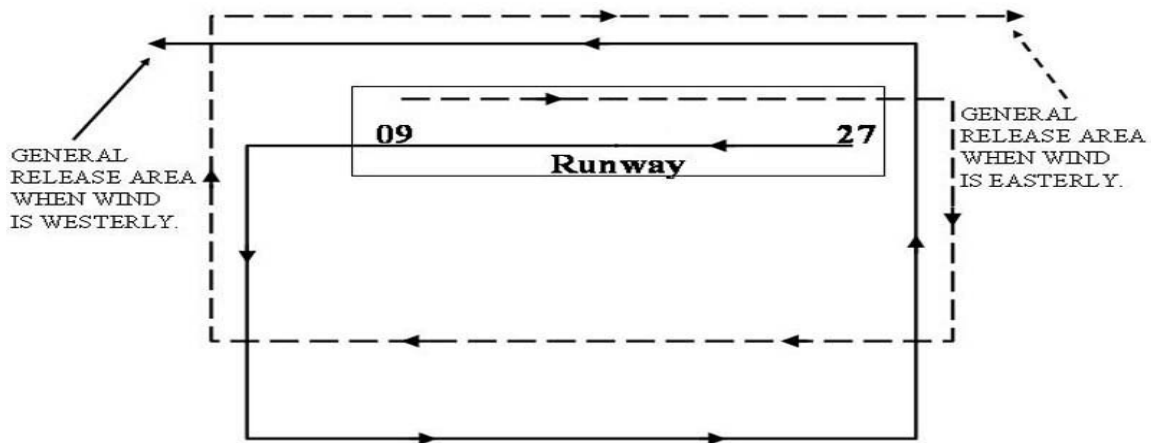
The Hawkesbury Aerodrome traffic frequency is 123.3MHz.

The frequency to be used between gliders involved in cross-country flights outside of the Hawkesbury aerodrome area is 123.4MHz. This frequency is to be used except when in the vicinity of other airfields where the local airfield frequency is to be used according to standard air regulations in effect. The following sections contain diagrams explaining the air traffic procedures maintained at the Hawkesbury aerodrome.

F. LANDING CIRCUITS



G. TAKE-OFF CIRCUITS



H. NORMAL TAKE-OFF PROCEDURES

- All take-off circuits shall be rectangular, and in such a way that both tow plane and glider remain within comfortable gliding distance from the airfield.
- The tow plane pilot shall keep a sharp lookout for other traffic since he is clearing not only his tow plane 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.

I. NORMAL LANDING PROCEDURES

- 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.).
- 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.
- 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.

J. LANDING MARKERS

The marker, which is positioned at the threshold of the runway, indicates sections for landing. Always land south of the marker and keep a straight path.

IMPORTANT RUNWAY MARKERS

The 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.

1.5 ENDING THE DAY

1. The flight line trailer battery should be left connected for charging from its solar panels. Be sure to turn off the radio and PA System. The garbage bag should be removed (if necessary) and placed in the garbage disposal depot near the entrance to the airport. A new garbage bag should be placed in the container at the flight line. The flight line trailer should be emptied, the radio and public address system turned off, the flight sheets, cash box and daily flight book removed, the panels closed and the door locked. Be sure to leave all *extra* air craft cushions in the flight line trailer and not in the gliders.
2. The parachutes should be bagged and left in the gliders that are stored in hangar only.
Parachutes from gliders stored in trailers should be removed and stored in the club Parachute room.
3. Glider batteries should be put on charge.
4. The gliders should be carefully dismantled or stored in the hangar by experienced people. When loading the gliders onto their respective dollies, always line up the glider in the direction it is to be pushed onto the hangar for storage.
5. The flight sheets (yellow copies) should be filed in the office and the (white copies) with yellow tickets and cash given to the responsible person.
6. Close any zones that were opened NAV Canada 1-800-633-1353 and enter in control book.

1.6 DUTY INSTRUCTOR'S RESPONSIBILITY

1. Instructors are responsible for reporting on their duty days or findings replacements and informing the team leader. (see Flight Line Manager roster appendix 10.14).
2. The team leader or the instructor in charge is responsible for the entire flying operation and reports to the CFI or his deputy.
3. The duty instructor makes sure the operation is run safely and prepares reports on any incident or accident.
4. The duty instructor should be constantly on alert for unsafe practices and deteriorating weather conditions.
5. Oversees and supports the Flight Line Manager in his functions.

1.7 FLIGHT LINE MANAGER'S RESPONSIBILITY

1. The Flight Line Manager is responsible for all items covered in section 1.1 to 1.4
2. Manager's responsibilities to organize co-ordinate and supervise all the phases of operation described earlier.
3. The Flight Line Manager is responsible to report on their duty days or to find replacements and inform team leader.
4. Reports to the duty instructor of any irregularity.

1.8 TIME KEEPER'S RESPONSIBILITIES

Time keeping is a crucial part of the flying operation and should be done meticulously as follows:

1. Print neatly and legibly pressing hard enough to make a 2nd copy.
2. Students and passengers are always entered as P2 and instructors and solo pilots are always entered as P1.
3. Enter introductory flights number in the remark column and the amount received in the cash column.
4. Enter special items such as non standard release heights, first solo, badge attempts, check flights, charge instructions etc. in the remark column.

1.9 MID WEEK FLIGHT LINE MANAGER RESPONSIBILITIES

Before any flying takes place the name of the responsible person shall appear on the flight sheet and a licenced pilot shall be *present on the ground* to control the operation. A qualified pilots list is located in the clubhouse on the bulletin board.

1. Open the Zones with NAV CANada.
2. Supervise unpacking of hangar.
3. Maintain flight sheets and release altitudes on flight sheets.
4. Ensure that all club aircraft have a DI signed off as ok.
5. Place landing tee at proper end of runway.

6. Ensure that only licensed pilots and members fly. No students shall fly without an instructor present.
7. Be ready to close the operation in case of deteriorating weather.
8. File yellow flight sheet in yearly log book and white sheet in the treasurer's mailbox located outside the office door.
9. If cash is collected make arrangements to send check to the treasurer and keep the cash. Note this action on the white flight sheets.
10. Remove garbage from the flight line trailer and replace garbage bag.
11. Leave the battery in the flight line trailer connected, since it is on solar cells for charging and turn off radio and PA system.
12. Lock the flight line trailer.
13. Place club batteries that were used on float in the hangar.
14. Bag parachutes in aircraft.
15. Close zones with ATC.
16. When finished in clubhouse for the day, lock the beer fridge and petty cash; alarm the clubhouse, deadbolt the pool door, Leave only the light near the front door on and dead bolt the front door.
17. If there is no one left in the park lock the front gate.

2. FLYING REQUIREMENTS

2.1 BASICS

In order to fly at MSC, the following requirements must be met:

1. Be a paid up member.
2. Have signed the MSC waiver.(Yellow Card or membership waiver)
3. Have an up to date logbook, which has been certified in the previous 6 months or a progress sheet.
4. Be 14 years of age to solo.
5. Have **two** check flights with an instructor if pilot has not flown in last 6 months.
6. Instructors need a 2nd check flight to carry passengers or to instruct.
7. Licensed pilots need 5 solo glider flights or 2 check flights with an instructor to carry passengers.
8. All licensed pilots should have an annual entry in their logbooks stating the following: Check Flight equivalent to licence standard approved

2.2 GENERAL PROGRESSION

Normally a pilot without experience can expect to be required to make at least 15 flights in each glider type before progressing to the next stage. Members with previous flying experience will fit into the sequence as determined by the check instructors.

2.3 TO FLY KROSNO/Twin Astir SOLO

1. Completion of the "Student Progress Sheet"
2. Passing of club's pre solo oral examination
3. Possession of a valid student pilot permit.
4. Passing an oral examination on the Krosno/Twin Astir Manual
5. Completion of two check flights, the second with a Class I instructor.
6. Instructor briefing before first solo in either aircraft.

2.4 KROSNO/Twin Astir after Solo FLYING (Students)

1. Check flight with an instructor every 5th flight for the first 15 flights.

2.5 TO FLY BLANIK L33

1. Have Completed 15 solo flights in the Krosno/Twin Astir
2. Check flight with an instructor (class 1 or 2)
3. Passing an oral examination on Blanik L33 Manual.
4. Instructor briefing before first flight

2.6 TO FLY Single ASTIR

1. Completion of 15 flights in the Twin Astir
2. 5 observed landings in the Twin Astir in a box 450'X150'
3. 30 hours as P1 .
4. Passing an oral examination on Single Astir Manual.
5. Completion of two check flights in the Twin Astir, the second with a Class I instructor.
6. Instructor briefing before first solo.

2.7 TO FLY DG 300

1. Completion of 5 approved landings in the Single Astir
2. 50 hours as P1
3. Passing of an oral examination on DG 300 Manual.
4. Instructor briefing before first solo.
5. Completion of two check flights in the Twin Astir, the second with a Class I instructor.
6. Instructor briefing before first solo.

2.8 TO FLY ASW-24

1. Completion of 5 approved landings in the DG-300
2. Passing of an oral examination on ASW-24 Manual.
3. Instructor briefing before first solo.
4. Completion of two check flights in the Twin Astir, the second with a Class I instructor.

2.9 TO FLY DUO-DISCUS SOLO

1. Completion of five approved landings in the Twin astir.
2. Have one cross country out landing to an unknown field in a single seat glider.
3. Pass an oral examination on Duo-discuss Manual.
4. Completion a minimum of 3 check flights according to the DUO check list and with two different instructors.
5. Instructor briefing before first solo.
6. Passenger carrying must always be done in the back seat because of the wheel locking.
7. **Aerobatics are prohibited**

2.10 INTRODUCTORY FLIGHTS (KROSNO)

1. Must have 10 solo flights on each of the Krosno
2. Must have two flights, one in the rear seat of the Krosno with a P2, in front before requesting check flights
3. Must have two check flights, one in the rear seat of the Krosno, the second with a Class I instructor.
4. Must have done one out landing in the L33 or Single Astir.
5. **Aerobatics are prohibited.**
6. The minimum age for non-member passengers is 12 years of age.

2.11 INTRODUCTORY FLIGHTS (TWIN ASTIR)

1. Must be passenger checked for intro flights on Krosno.
2. Must have 10 solo flights in the Twin Astir.
3. Completion of two check flights, the second with a Class I instructor.
4. To fly from the back seat of the Twin Astir, the pilot must have 2 checks with an instructor in the front seat.
5. **Aerobatics are prohibited with all passengers**
6. The minimum age for non-member passengers is 12 years of age.

2.12 VISITING PILOTS

1. Must have a valid Canadian glider pilot license or student pilot permit or appropriate clearance from Transport Canada.
2. Must have two check flights, the second with a Class I instructor who will decide which aircraft can be flown.
3. Must have signed the MSC waiver prior to check flights
4. Must be covered by SAC insurance, i.e. a member of an SAC club otherwise a daily membership will be charged.

2.13 PRIVATE OWNERSHIP

1. Members wishing to fly a private ship at MSC must first obtain consent from the CFI or his delegate.

3. FLYING RULES

3.1 FLYING DISCIPLINE

1. Members must observe the Canadian aviation regulations (RAC) and MSC regulations.
2. Any instructor present can take immediate action against members violating regulations.

In case of disagreement, the penalized member has recourse in the following order:

- a) The Instructor's Team Leader
- b) The CFI or in his absence his Deputy
- c) The Instructor's Panel whose decision is final.

3.2 FLYING ROUTINES

1. Before Flying

- a) Be ready to fly when you get in line.
[Controls, Instruments, Straps, Trim & Ballast, Release, Spoilers & Flaps, Canopy, Options.]
- b) Do a release check if the aircraft is flown for the first time.

2. In Flight

- a) Do the over-the-fence check (IS). [Instruments, Spoilers]
- b) Do the 300' check allowing turning back to the airfield in case of a rope break.
- c) Do the after release checks (SW). [Spoilers, Wheel]
- d) Before doing any aerobatic manoeuvre (e.g. stalls, spins, loops, etc.) do a CALL check. [Cockpit, Altitude, Location]
- e) Do pre landing checks (SWAFTS). [Straps, Wheel , Water & Wind, Airspeed, Flaps, Traffic, Spoilers]
- f) Always do proper lookout.

3. After Landing

- a) Close air brakes, flaps, master switch and canopy.
- b) Rotate glider perpendicular to the field to minimize obstruction.
- c) Assume responsibility for the aircraft until it is properly secured off the runway or has been taken charge of by the next pilot.

3.3 CLUB GLIDER ALLOCATION

1. Club gliders can be used for cross-country tasks and for badge attempts.
2. They must be declared before 10:00 a.m. that day and approved by the instructor in charge.
3. If more than one pilot is interested, a toss up will be organized by the Performance Flying Group at 10:00 hours in the clubhouse.
4. Krosno and Blanik L23 are not allowed to go cross country but can be used for locally flown badge attempts. Other club ships can, provided there are enough ships left for the number of members wanting to fly. The following guidelines apply:
 - a) A minimum of two high performances fiberglass single-seater must be available for remaining members.
 - b) Exceptions can be made, as decided by the chief instructor in charge, for official competitions, or if there is a minimum number of members waiting to fly.
 - c) The L23 may be used for cross country out landing checks with an instructor to Wendover Airport..

3.4 TIME LIMITS

1. During normal flying operation, all flights in club ship are limited to one hour, except for introductory flights which are limited to 30 minutes. Krosno/Blanik are also limited to 30 minute flights unless approved by the instructor of the day. After 3 minutes of grace, every over time minute will be billed as Fee Structure. This will only be waived in the following cases:
 - a) The pilot is accomplishing a declared task
 - b) The pilot inquires if, or is informed, he can stay longer.
 - c) The pilot can prove nobody was waiting for the aircraft.

- d) Time limits during the weekday operation will be determined by the authorized responsible person in charge.

Specific Duo Discuss time limits & rules

1. Two full time MSC members will be privilege in using the Duo Discus over single solo members at any time.
2. Two members and both valid P1 pilots on the Gliders are allowed to 3 hours.
3. **Introductory flight should not be allowed on the DUO** except for special and rare occasion were only the duty instructor could allow an intros
4. Passenger carrying (family & friends) must always be done on the back seat because of the wheel lock-up mechanism in front seat only.

3.5 DUAL FLYING

1. Students may take familiarization flights in an aircraft beyond their current training, but this should be exceptional since current training is more important.
2. Licensed pilots may fly together provided they are both solo on the aircraft.
 - a) When two glider pilots and active club member, *each being qualified as P1*, fly together in a two-seater high-performance glider (Twin-Astir or Duo-Discus) the maximum flying time may extended to 3 hours (being 1 1/2 hour for each of the pilots).

The glider rental cost may be applied entirely to one of the pilots, or one-half for each of the pilots, as they agree. However, the tow fee cannot be split and must be paid by one of the pilots.

Concerning assessment of rental fees, if both pilots have a rental plan, or both pay per minute, there is no problem to split the cost. If one of the pilots has a plan and the other pays per minute, the one who rents per minute must pay the minute rate and cannot use the other's rental plan to cover his portion of the flight. A clear note must be made on the timesheet by the end of the flying day. If this is not done, or if the note is unclear, the pilot listed as P1 on the sheet will be invoiced for all charges, and he/she must settle his account with the other pilot personally.

The above does not apply to a flight where an instructor conducts a regular or advanced instructional flight, and where the student is responsible for the costs.

- b) It is not permitted to allow a member his/her flat-rate rental plan for the benefit of another member, who does not have a plan, by the joining him/her on a flight in a two-seater in order to "pro-forma" pay for the glider rental fee.
3. Aerobatics are prohibited unless one of the pilots is an instructor (Air Regulation para 519) The other must be a licensed pilot.

4. Transfers of controls must be accompanied by a positive response from both pilots as follows “ You have control” reply “I have control” or “I have control” reply “You have control.”

3.6 AEROBATICS

1. The minimum altitude for aerobatics is 3000 ft AGL and must be preceded by a CALL check (see soar instruction manual). In club aircraft the following rules apply:
2. Pilots can only do the manoeuvres for which a qualified instructor has trained them.
3. The only permitted manoeuvres are loops, wing over and spins.
4. Inverted flight is strictly prohibited.
5. High speed low passes are only permitted for contest finishes or with permission from the duty instructor. They must first be cleared by radio giving location, height and intended flight path and should never proceed below 300' AGL
6. Aerobatics are strictly **forbidden to student pilots and with non licensed passengers.**
(Transport Canada)

3.7 LANDING PATTERN

1. The normal landing circuit is joined the crosswind end of the field between 800 to 1000' and is done North of the runway.
2. The upwind is done south of the runway
3. Unless there is an emergency, the four legs should be made i.e. crosswind, down wind, base and final.
4. Normal runways used at Hawkesbury are 27 & 09

4. CROSS COUNTRY FLYING

4.1 GENERAL

1. A "Cross country" flight is one flown outside the gliding range of MSC airfield.
2. All pilots must fly locally i.e. within gliding range of MSC airfield until they are checked out to fly cross-country. Don't get caught landing out because you were chasing thermals.
3. Pilots who are checked out to fly cross country must fly locally until they have completed five flights on type within the last six months.

4.2 CROSS COUNTRY APPROVAL L33

1. Must do three consecutive successful cross country checks (450' X 150' box landings, 2 head wind and 1 crosswind)
2. Must have five solo take-offs and landings in the season.

3. Demonstrate a working knowledge of rigging, inspection, equipment and trailer usage and inspection. (Met all the Bronze Badge requirements)
4. Must do a successful cross country landing check with the Twin Astir or Krosno at Wendover Airport or known airfield with a check instructor in the back seat. Must meet acceptable level of proficiency in circuit planning and landing technique.
5. Logbook signed by Class I instructor that all requirements are met.

4.3 CROSS-COUNTRY APPROVAL (SINGLE ASTIR)

1. Must have made one cross-country out-landings in the Twin Astir or Krosno
2. Must hold a Silver 'C' badge.
3. Must have one precision observed landing.
4. Must have five solo take-offs and landings in the season.

4.4 CROSS-COUNTRY APPROVAL (DG 300, TWIN ASTIR)

1. Must have made three cross-country out-landings in the Single Astir.
2. Must have 10 solo flights on that particular glider.
3. Must have one acceptable precision observed landing on that particular glider.
4. Must have five solo take-offs and landings in the season.

4.5 TWIN ASTIR USE

The Twin Astir should be used according to the following priority:

1. Cross-country instruction
2. Cross-country dual. (Record attempts have priority over local pleasure flights.)
3. Local training and check-outs
4. Local soaring.
5. Introductory flights

4.6 TASK DECLARATION

1. In order to fly a MSC glider cross-country, a member must have the following:
 - a) Have a glider available. (See Flying rules, sailplane allocation)
 - b) Be approved to fly cross-country on that particular glider.
 - c) Have checked that all trailer equipment is ready for retrieve. (see Section 9.2)
 - d) Have organized a suitable retrieve crew.

4.7 LANDING OUT

1. When landing away from Club airfield, the pilot must not leave the glider until he has turned the glider lower wing into the wind, and weighted it with the parachute or other suitable object.

2. The pilot should make sure the glider is secure before leaving it, preferably under some supervision.

5. TOWING

5.1 GENERAL

1. No passenger carrying in the tow plane unless the Chief Flying Instructor gives authorization. Exceptions can be made only for special events, i.e. special photographic requirements for the club or ferry flights.
2. Cross-country retrieves must be authorized by the Instructor of the day and only from recognized air ports. No aero retrieves are to be made from farmer's fields. All gliders *except the*, DG-300, DG-303 can be launched without a wingman as long as the pilot is properly trained and his logbook signed off accordingly.
3. All tow pilots must be familiar with take-off hand signals and emergency release signals.
4. To improve safety the tow planes must have **landing lights turned on at all times when flying.**
5. Tow pilots should return to field as soon as releasing the glider and not do pleasure flying around the sky. Always give way to gliders, especially in the circuit and thermals.
6. If you don't know how to recognize a thermal, talk with a glider pilot and he/she will be more than happy to assist. Non-glider tow pilots are encouraged to take one *free* glider flight in order to appreciate what the glider pilot expects from his/her tow.
7. Advise the flight line on the radio of release altitude.
8. Aerobatics and spinning are prohibited.
9. Clean the aircraft at the end of the flying day.

5.2 TOW PROCEDURES

1. Operating from runway 27, tows should consist of a left hand circuit staying over farmer's fields and avoiding Casburn Road and the housing development in West Hawkesbury.
2. Operating from runway 09, tows should consist of a right hand circuit staying clear of built up areas over West Hawkesbury especially at low altitudes.
3. Deviation from the standard tow pattern should only occur when the glider pilot makes a request and should be kept to a minimum.
4. On takeoff, never pull up quickly or allow tug to balloon. This can cause a lot of problems for the glider pilot who may have water on board with a diminishing airspeed.
5. While towing always keep your eyes moving for gliders in free flight.
6. Always drop the glider upwind of airport.
7. Visually ensure that the glider has released before reducing power or descending.
8. Do not tow a glider further from the airfield than your tow plane can glide with a dead engine

9. Always be alert for unusual problems, i.e. engine failure, glider with airbrakes open, glider that can't release. In the case of the latter, return to the airfield until the problem is resolved. In this case a release by the tow plane may be necessary, but only if the glider pilot identifies the problem by flying to either side wagging wings.
10. Think noise abatement when flying under 2000'.

5.3 TOW SPEEDS

1. Tow speeds are critical, especially with low performance gliders, i.e. Krosno, L-33. These gliders should not be towed in excess of 60 mph.

6. OFF SITE OPERATIONS

6.1 PRE- DEPARTING

1. Prepare five tow ropes minimum, 200' with links.
2. Pack one case of Shell W100 in the glider Trailer.
3. Check all trailer lights.
4. Check wheel bearings and wheel lugs on all trailers.
5. Check trailer tire pressure.
6. Pack six ground screws for each trailer with tie down rope.
7. Purchase four rolls of white tape for the gliders.
8. Pack a parachute for each glider seat. (Short packs for Twin)
9. Install oxygen systems in all gliders going to wave flying sites, pre test system.
10. Contact A/C Maintenance Director for instructions on which tug is to go. (Radio must be in working condition)
11. Arrange for master oxygen bottle and filler hose. (See Wave Boss)
12. Make sure that all pilots going out of country are aware of the importance of having Medical Insurance.
13. The tug shall fly with the Journey Log Book on board and upon arriving at the site, store it with the other logs in the box in glider Trailer.
14. Pack two battery chargers and associated A/C batteries.

6.2 TRAILERING GLIDERS

1. Provide MSC board with names of who is trailering gliders down and back with firm dates.
2. Drivers must carry Journey Log Book with them and store in Twin Trailer when there.
3. Driver is responsible to tie down trailer when he gets to the offsite airport. Tie down at both ends of glider trailer.

6.3 RESPONSIBILITY

1. Overall responsibility of the Wave Camp rests with the Pre-Assigned Person.
2. All pilots who sign up will be billed cost of operation on a shared basis with the exception of tow pilots not flying gliders.
3. Anyone wishing to fly must register with the Pre-Assigned Person when they arrive at the off-site location.
4. Anyone who has not flown before at the site must take an orientation flight in the Twin with an MSC Instructor.
5. Tow pilots must keep an accurate record of fuel purchased on the form provided. Forward to Club Treasurer upon completion of the Wave Camp.
6. The Pre-Assigned Person will maintain the time sheets and tow charges.
7. The Pre-Assigned Person will be responsible to ensure that all aircraft (Glider & Tug) logbooks must have entries made daily. (Journey and Technical)
8. All pilots must have their logs books with them and hold a Silver C Badge if they wish to fly solo. Those who have flown at the site for many years and don't hold a Silver C Badge but meet all other criteria can be considered "grand-fathered in." Solo pilots must have a Medical Category 3 in order to fly in a foreign country. **Medical certificates with validity periods exceeding 24 months are not valid outside of Canada.** See Transport Canada MC revisions for international flights.

6.4 COST

1. Cost must be established in advance by the Board of Directors for every off field Club activities & aircraft utilisations if not detailed in the annual fee structure.

6.5 OXYGEN

1. Only trained pilot are allowed to use the oxygen system
2. System functionality must be validate with equipment director
3. Oxygen bottle must be refill in an approved & certified retailer.
4. Read and be aware of items in the section 9.4 of this document.

6.6 SAFETY

1. Remember when flying the ridge always turn away from the ridge when reversing direction and know where the airport is at all times.
2. Fly safely and above all have fun.
3. At active airports, such as Lake Placid:
 - a) Do not drive on the runway. Use the grass on the side only.
 - b) Cross runway on grass before threshold only.

6.7 OPERATIONS (Specific to Lake Placid)

1. All takeoffs will be done on the hard strip.
2. Pilots will board glider on holding area at end of runway in use and will be hooked up in that location and then slowly towed onto the runway by the tug for takeoff.
3. All landings will be on the grass strip to the east of the main runway. This includes the tow plane and all gliders.

7. INSTRUCTOR REQUIREMENTS

7.1 CRITERIA TO BECOME A GLIDER INSTRUCTOR

1. To qualify must be invited by the Instructors Panel to become a MSC Glider Pilot Instructor.
2. Must attend and pass SAC Instructors Course to qualify.
3. If unable to attend SAC Course may at the discretion of the CFI write the MSC Instructors exam and achieve a minimum of 60%.
4. Candidate should have approximately 100 hrs. P1 time.
5. Should have flown all of the MSC fleet or to the CFI discretion.

7.2 CLASS III INSTRUCTOR

1. Minimum age is 18
2. Instructor should train in all MSC two-seater sailplanes.
3. Cannot sign out any students as a Class III Instructor.
4. Should instruct at least 3 hours per season.
5. Cannot sign out any check flights, but can sign observed landings.
6. A new instructor is considered to be on probation for first year of instructing.

7.3 CLASS II INSTRUCTOR

1. Candidate has instructed a minimum of 50 flights and appointment made with recommendation by the CFI, when candidate demonstrates the necessary attributes to become a Class II instructor.
2. May instruct in all MSC sailplanes.
3. May provide checkout signature on all checks flights, except the second solo flight check.
4. Should instruct at least 3 hours per season.

7.4 CLASS I INSTRUCTOR

1. Candidate has instructed a minimum of 100 flights and appointment made with recommendation by the CFI, when candidate demonstrates the necessary attributes to become a Class I instructor.

2. May provide checkout signature for 1st or 2nd check flights.
3. Should instruct at least 3 hours per season
4. Must understand the required TC documentation for student and glider pilot.

7.5 General instructor Rules

1. Instructors class is not a life time status; anyone not meeting the criteria anymore or not been active in the previous year, may be retrograded to previous class until check flight is done with the CFI or an appointed instructor from him.
2. Rating will be revised during the instructors season check.
3. Instructors are responsible to keep themselves up to date with rules and lessons they provides.
4. To keep the voting privilege and be recognized active on the instructor panel, the instructor must have provided a minimum of 3 hours instruction at MSC in the previous year.

7.6 CHIEF FLYING INSTRUCTOR

1. Chief Flying Instructor appointed by the Instructors Panel yearly.
2. CFI appoints a Deputy CFI and Chief Tow Pilot
3. Deputy Chief Tow Pilot appointed by Chief Tow Pilot
4. Other details of CFI responsibilities are listed in the Club Regulations.

7.7 INCIDENT REPORTING

1. The instruction guide for completing the Accident/Incident Reporting and Coding Form (SAC Form can be obtained from the CFI or his deputy.
2. The purpose of the form is to record a gliding-related event that was significant, unfortunate, often expensive, and undesirable to repeat.
3. The aim is let other gliding related participants learn about it, and to provide data for statistical analysis to evaluate trends in accidents and incidents.
4. Report on as many "Events" as possible is the aim of this program.
5. Incidents should be anonymous, so there is no need to include your club's name, etc. but always provide the pilot and aircraft data.
6. Incidents involving damage must be reported to the CFI in detail. This data is for the use of the MSC Instructor's Panel and the Board of Directors only.

8. LICENCING

(See Tranport Canada web site for current requirements at:

http://www.tc.gc.ca/quebec/nar_a/broch_plan_e.htm#items%20required%20for%20flight

All documentations, recommendation letters, exam (PSTAR), student progression chart are under the CFI responsibility and located in the Instructors cabinet.

8.1 STUDENT PILOT PERMIT REQUIREMENTS

AGE: An applicant must have reached their 14th birthday.

8.2 PROOF OF AGE

1. A Citizenship Certificate
2. A Certificate of Registration of Birth Abroad.
3. A birth or baptismal certificate.
4. A passport.
5. An aviation personnel licence.
6. A Canadian Immigration Record (IMM1000)

8.3 CITIZENSHIP

The following documents are acceptable as proof of citizenship:

1. A Citizenship Certificate
2. A valid passport
3. A Canadian birth or baptismal certificate or a certificate from a country whose citizens do not require a passport to travel in Canada
4. An aviation personnel licence, showing the holder's citizenship. The licence must be issued by the state of which the applicant is a citizen.
5. A Canadian Immigration Record and Visa (Form IMM1000) issued by the Dept. Of Employment and Immigration. Canadian Immigration Identification Card acceptable
6. A Certificate of Registration of Birth Abroad issued by the Dept. Of Employment and Immigration.

8.4 SPECIAL NOTES

1. A landed immigrant may have their citizenship status entered as A Landed Immigrant@ or their country of citizenship.
2. If a landed immigrant becomes a Canadian Citizen, they may notify Transport Canada and their licence will be re-issued without charge to reflect their Canadian Citizenship.
3. To avoid confusion the applicant should not alter their choice on subsequent applications.
4. Refugee applicants who cannot satisfy the previous mentioned citizen requirements may use one of the following documents as proof of citizenship
 - a) A valid Minister's Permit IMM1263
 - b) A valid Employment Authorization Form IMM1102 or IMM1442

8.5 MEDICAL FITNESS

1. A Medical Assessment letter. The letter must indicate Medical Category 1,3 or 4.
2. A valid Medical Certificate indicating Medical Category 1, 3 or 4.

8.6 KNOWLEDGE

1. The applicant must provide a statement of assurance from the holder of a flight instructor rating-Glider category stating that the applicant has passed an examination on the following subjects:
 - 1) Canadian Aviation Regulations (RAC)
 - 2) Air Traffic Control Clearances
 - 3) Air Traffic Control
 - 4) Special VFR Regulations
 - 5) Information Circulars
 - 6) Notams

8.7 EXPERIENCE AND SKILL

1. Prior to the issuance of a Student Pilot Permit, an applicant must be provided with a log book certified by a holder of a valid Glider Pilot licence endorsed for Glider Instructor privileges. The entry must state that the applicant has reached a satisfactory standard of experience and skill to complete solo flight.

8.8 ISSUING THE STUDENT PILOT PERMIT

1. The Student Pilot Permit is issued by an Authorized Person within MSC.
2. The Student Pilot Permit must be issued before solo flight can occur.
3. The Student's log book must indicate that a pre-solo exam has been given by a valid Glider Pilot Instructor indicating signature and licence # prior to solo flight.
4. The Student log book must be signed by two MSC Check Instructors stating that the student has reached the necessary level and has the qualifications to solo. A Check Instructor is as follows:
 - a) Class II Instructor with 2 years instructor experience may give the 1st solo check.
 - b) Class I Instructor with 3 years instructors experience may give the 2nd solo check.
5. The Student Glider Pilot Permit is good for 60 months.

8.9 GLIDER PILOT LICENCE REQUIREMENTS

1. AGE

An applicant must have reached their 16th birthday.

2. MEDICAL FITNESS

- a) The applicant must possess a valid Category 1, 3 or 4 Licence Validation Certificate. The validation certificate is valid for 60 months.
- b) The normal medical validity period for a licence holder is 60 months.

3. KNOWLEDGE

- a) Ground school: 15 hours of Glider Pilot ground school must be completed (10 hours by a power pilot) covering the following:
 - 1) Canadian Aviation Regulations
 - 2) Aerodynamics
 - 3) Theory of Flight
 - 4) Meteorology
 - 5) Airframes and Systems
 - 6) Flight Instruments
 - 7) Navigation
 - 8) Flight Operations
 - 9) Emergency Procedures
 - 10) Human Factors

The instructor must state in a letter that the course has been completed. It should show the number of hours and subjects covered along with the date, signature and licence # of the instructor.

b) Written Examination:

- 1) The applicant must successfully complete (60%) the Glider Pilot written examination (GLIDE) given by Transport Canada. A letter of recommendation is required in order to send the applicant to write the Transport Canada exam.
- 2) Prior to sending an applicant to write the Transport Canada exam, a similar exam is given at MSC, which is reviewed with the applicant immediately after completion. Explanation is given on incorrect answers. If the applicant is ready to write the Transport Canada exam, they should have a least 60% on the MSC exam. If marks are less than this, the applicant should do some more studying before rewriting the MSC exam the phone numbers for Transport Canada are: Montreal 514-633-3863 and 416-224-3124 or 3520 for Toronto.

4. EXPERIENCE

- a) An applicant must have completed six hours total flight time in gliders. (three hours for power pilots) The training course shall be completed within 24 months preceding the date of application for the licence and shall include not less than one hour dual and two hours solo time including no fewer than 20 takeoffs and landings.
- b) The applicants log book must be certified by the CFI or instructor.
- c) The flight time must be completed within 24 months preceding the date of application.

5. SKILL

- a) The applicant must successfully complete a Glider Pilot flight test.
- b) A letter must be submitted to Transport Canada stating that the applicant has demonstrated the ability to perform both normal and emergency procedures with a degree of competency appropriate to a glider pilot.
 - 1) The letter must be dated prior to or the same day as the application.
 - 2) Flight test may be conducted by a valid Glider Instructor.

6. TIME LIMIT

- a) The written examination required for the issuance of a Student Pilot Permit is valid until a pilot licence is issued.
- b) The Glider Pilot written examination and flight test must be successfully completed within the 12 months preceding the date of application for the licence.

7. GLIDER PILOT INSTRUCTOR RATING

- a) Requires a letter to Transport Canada from the MSC CFI recommending appointment.

8. GLIDER PILOT ENDORSEMENT

- a) Requires a letter to Transport Canada from the MSC CFI recommending the endorsement.

9. EQUIPMENT

9.1 PARACHUTES

1. CARE OF PARACHUTES

- a) They should be handled carefully and kept in good condition. Check the packing card and if not packed in the current calendar year, the chute should be removed from service.
- b) Never leave a parachute lying around on the ground. Store parachute in parachute bag when not in use. Crotch harnesses should be left in the connected condition.
- c) 3. Always lift a parachute by the harness, never by the risers.
- d) 4. Chutes may be stored in their bags for aircraft stored in the hangar but chutes used with glider stored in their trailers should be stored in their bags in the parachute room.
- e) 5. Parachutes should be re-packed and aired at least once a year.
- f) 6. Check the POPTOP for excessive material protruding from under the pilot chute. This is the round disk on the back of the container, if applicable, excessive material jutting out will mean that the chute is lopsided and therefore needs to be repacked.

2. WEARING A PARACHUTE

- a) Ensure that the ripcord handles are well positioned in their pockets.
- b) Prior to boarding the aircraft make sure that all the straps are connected and snug. It is useless to wear a parachute that is not ready to use in an emergency. It is

recommended that instructors and students wear parachutes when doing Aerobatics manoeuvres and spin training.

3. USING A PARACHUTE

- a) Below 500' agl you are better to ride the glider down especially if in a heavily wooded area.
- b) If the occasion should occur when you have to use the parachute, don't hesitate to go. Exit the aircraft as quickly as possible and as soon as you are clear pull the ripcord using both hands.
- c) Look straight at the horizon and keep the feet firmly together. Upon contact with the ground do not raise your legs just before landing. This could result in serious injury.
- d) If you find yourself being dragged by the wind after landing, grasp any riser line and pull in hand over hand until the canopy deflates.

9.2 TRAILERS

1. CHECKLIST BEFORE USING TRAILER

- a) Check tire pressure and wheel lugs.
- b) Check that all components used for cross country retrieve are present.
- c) Check that running and brake lights are operational.
- d) Check that a safety chain is available.
- e) Check that licence plate and registration are available.

2. WIRING STANDARD

- a) Plugs used on all MSC trailers are of the same design as used on standard travel trailers, i.e. 7 contacts plus center pin.
- b) At no time shall these plugs be removed or modified and no other type shall be added to the system.
- c) The standard wiring is as shown follows:
 - White = Ground
 - Red = Left Flash
 - Brown = Right Flash
 - Green = Running
 - Black = 12 Volt Supply Steady (for inside lights etc.)
 - Blue = Electric Brakes (Not used on MSC Trailers)

3. TRAILER TOWING

- a) MSC trailers use a 1 7/8" ball with the exception being the Krosno and Blanik trailer which use a 2" ball.

9.3 VOLKSLOGGER FLIGHT DATA RECORDER

INTRODUCTION

The Volkslogger is an FAI approved GNSS Flight Data Recorder with integral Navigation Display. The unit should not be exposed to direct sunlight for extended

periods of time on the ground, but keep it covered when not in use. It should not be stored in cold temperatures during the winter months. Validate usage with a certified OO.

9.4 OXYGEN USE IN SAILPLANES

1. GENERAL

- a) Several MSC aircraft are equipped with oxygen systems. Anyone intending to use these systems must be familiar with both the physical effects and the mechanics or operation of the system.
- b) Before flying at MSC wave camps a pilot should familiarize themselves with the following information.

2. ANOXIA

- a) The seriousness of the effects of lack of oxygen cannot be over stressed. The problem of a lack of oxygen is usually a feeling of well-being and over-confidence. This is followed by a progressive lack of concentration so that, the aircraft is not completely under control & finally, loss of consciousness and even death occurs unless the supply of oxygen is restored.
- b) It should be noted that if you are a smoker, supplementary oxygen should be used 3,000 ft lower than a non-smoker.

3. WHEN TO USE OXYGEN

- a) At 10,000 ft all pilots should use the glider oxygen system. Use the Normal setting on the regulator. This is good between 10,000 - 25,000 ft.
- b) If you fly above 20,000 ft. you should carry a three minute bail out bottle.
- c) c) Remember at 25,000 ft., without the oxygen system you only have 30 seconds of consciousness left.
- d) d) Above 25,000 ft, set the regulator to High.
- e) e) If you intend to fly high and use an oxygen mask, shave off your beard if you want the mask to fit and work properly.

4. PRECAUTIONS

- a) No oil or grease may be used on or near oxygen equipment as this may cause an explosion on contact with the oxygen.
- b) Check the complete system regularly, including mask, for leakage.
- c) c) Before take-off, check the contents indicator and turn on the main valve as far as it will go.
- d) d) Ensure that oxygen flows freely into the mask.
- e) e) If you intend to fly high and use a oxygen mask, shave off your beard if you want the mask to fit and work properly.

5. CONCLUSION

- a) Remember that oxygen is of no use if the pilot is insufficiently skilled to make use of the conditions, or if the aircraft or instruments are unserviceable. Only systematic care will ensure that all the vital things are serviceable on the day they are needed.

10. APPENDICES

10.1 BADGES

BADGES FA I

“A” BADGE

The “A” Badge is awarded, with no charge, upon completion of initial glider solo flight.

“B” BADGE

The “B” Badge is awarded, with no charge, upon completion of a soaring flight of at least 30 minutes after a release from a 2000' tow. If a 3000' tow was taken the flight time must exceed 45 minutes.

“C” BADGE

The “C” Badge is awarded upon a flight of at least 1 hour after release. If a 2000' tow is taken then the total flight time should exceed 1 hour 10 minutes. *The recipient must have a least 2 hours minimum solo time to qualify.* Badge is obtained by applying to SAC.

BRONZE C BADGE

The “Bronze” Badge is awarded upon completion of acquiring a Glider Pilot Licence, 50 solo flights, a solo gain of a least 1000 meters (3281 feet) above the release point or low point after release and a solo duration of at least 2 hours from time of release from a launch of no more than 2000 feet, or if a higher launch is made, 15 minutes additional time for each 1000 feet or part thereof.

SILVER C BADGE

The “Silver C” Badge is awarded upon completion of a duration flight of 5 hours from time of release, a gain of height of a least 1000 meters (3281 feet), a distance flight of at least 50 km measured in a straight line from the departure point to the landing point.

GOLD C BADGE

The “Gold C” Badge is awarded upon completion of a duration flight of at least 5 hours, a gain in height of at least 3000 meters (9842 feet), and a distance flight of at least 300 km containing not more than three turn points.

DIAMOND C BADGE

The “Diamond Goal” Badge is awarded with a gain of height of at least 5000 meters (16,404 feet), a flight of at least 300 km around a triangle, and a flight of at least 500 km not containing more than three turn points.

1000 Km DIPLOMA

The 1000 km Diploma is awarded for achieving a distance flight of 1000 km or more.

10.2 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 glide, 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.

CISTRSCO

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 manoeuvres)

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

A = Altitude, adequate for planned manoeuvres 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.

10.3 SOARING FLIGHTS

The following soaring protocol is to be followed at all times:

JOINING A THERMAL

- Gliders established in a thermal have the right of way.
- All pilots shall circle in the same direction as any gliders already established in an area of lift.
- If there are gliders thermalling in opposite directions, the joining glider shall turn in the same direction as the nearest glider (least vertical separation)
- The entry to the turn should be planned so as to keep continual visual contact with all other gliders at or near the planned entry height.
- The entry should be flown at a tangent to the circle so that no gliders already turning will be forced to manoeuvre in order to avoid the joining glider.

SHARING A THERMAL

- Pilots should adhere to the principle of “see and be seen”.
- When at a similar height never turn inside or point at or ahead of another glider unless you intend to overtake and can guarantee safe separation.
- Leave the thermal if, in your judgment, you cannot guarantee adequate separation.
- Lookout for other gliders joining or converging in height.

LEAVING A THERMAL

- Look inside the turn and behind before straightening.
- Do not manoeuvre sharply unless clear of all other gliders.

None of the above absolves a pilot from the responsibility to take any action necessary to avoid a collision.

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