



2017 SOSA Student Members' Kit

From First Flight to Solo to Licence

1. INTRODUCTION	4
2. FACILITIES	4
3. MEMBERSHIP AND FLYING COSTS	4
4. HOW DO I PROCEED?	5
5. COMMUNICATIONS AND SOSA CHAT	5
6. WHAT YOU NEED TO START LEARNING HOW TO FLY	6
7. BEST TIMES FOR FLIGHT INSTRUCTION	7
8. YOUR INITIAL DAYS AT SOSA	7
9. MOVING GLIDERS	8
10. KEY PEOPLE	8
11. GETTING IN LINE ON THE FLIGHT SHEET AND FINDING AN INSTRUCTOR	9
12. MORE PAPER WORK: THE 3 PART TICKETS	9
13. TYPICAL ELEMENTS OF INSTRUCTION	10
14. GROUND SCHOOL	11
15. ASKING QUESTIONS AND SEEKING HELP	11
16. ACCOUNTS	11
17. DUTY CREW AT THE FLIGHT LINE	12
18. THE CLUB GLIDERS: JARGON AND OTHER AVIATION SPEAK	12
19. THE FIELD AT SOSA	12
20. BE AWARE OF RUNWAY ACTIVITY	13
21. BE AWARE OF THE TOW ROPE	13
22. BE AWARE OF THE TOW PLANE AND PROPELLER	13
23. LAUNCHING A GLIDER	13
24. RETRIEVING A GLIDER	14
25. COME TO FLY OFTEN!!!	14
26. PROGRESSION TOWARD YOUR SOLO FLIGHT	15
27. IDENTIFICATION, MEDICAL, RADIO AND PRE-SOLO EXAMS	15
28. RECOMMENDATION FOR SOLO	16
29. YOUR SOLO FLIGHT	17
30. WHAT'S NEXT AFTER YOU GO SOLO?	17
31. GOING FOR YOUR LICENCE	17
32. FLY OFTEN	18

33. CHALLENGE YOURSELF BY FLYING OTHER AIRCRAFT 18

34. GROUND SCHOOL EXAMINATION 18

35. FLIGHT TEST 18

36. CROSS COUNTRY CHALLENGES..... 19

 36.1 BRONZE BADGE.....19

 36.2 SILVER BADGE.....19

37. SAFETY 20

APPENDIX A – COST OF LEARNING TO FLY GLIDERS VS POWERED AIRCRAFT 22

APPENDIX B – FEES 23

1. Introduction

Welcome to SOSA Gliding Club! We are delighted that you joined and want you as a member for many years. SOSA, founded in 1948, is one of the oldest and largest clubs in Canada, is well known for its standards of excellence throughout North America and for its pilots winning competitions worldwide. SOSA has operated at our airfield on Cooper Road, Rockton, ON since 1966 as a non-profit organization that runs on the basis of volunteer labour; no one is paid. Everyone, Tow Pilots, Instructors, Timekeepers, Wing Runners, and Grass Cutters volunteer and everyone gives freely of their time to ensure that SOSA functions efficiently and inexpensively.

Most importantly, make yourself at home, enjoy the Club and its members and, above all, have fun! At first, you'll find the procedures, aircraft, facilities and people unfamiliar; this guide will help you find your way around SOSA and how to learn the most from your experience. It is not intended to be a complete guide to gliding. It focuses on important operational issues and key steps in training to obtain your license. It introduces safety, what to expect at milestones during your training, what to expect from other members and what they expect from you. In essence, all members work together to make SOSA a thriving community of flying enthusiasts focused on our mission: to foster the art, science and practice of soaring at the sport's highest standards.

2. Facilities

The Club owns the airfield consisting of 3 runways, 2 hangars, a workshop, an office trailer, a clubhouse with a lounge area, shower/washrooms and full kitchen, and a campground. Our fleet consists of 3 tow planes and a variety of double and single seat gliders totaling 10 aircraft. About 30 privately-owned gliders are based at SOSA. Camper trailers, parked in the campground, are owned by members staying the weekend to enjoy as much flying as possible.

3. Membership and Flying Costs

How much is gliding going to cost as you move toward going solo and becoming licensed? This depends on your dedication to and personal pace of learning. Most new members solo during their first season at SOSA and complete their license the following season. It is possible to complete your license in a single season if you are able to fly a lot!

Obtaining a glider license is inexpensive, costing about \$4,800 or less in 2017 which includes our Club membership fees for the first flying season (see Appendices 1 & 2 for details).

Here's why!

- Club membership is \$200 under age 26 yrs, \$650 for others;
- Initiation fee \$200 for first 3 yrs if over 25 yrs. No fee under age 26 yrs;
- Flight training and ground briefings by Transport Canada certified SOSA instructors are free;
- Glider rental for ~60h of training and aero tows and winch launching ~\$3000;

- Ground school and required materials \$200;
- Soaring Association of Canada membership fee \$80;
- Transport Canada multiple choice examination fee \$110;
- Flight test by a Transport Canada-approved SOSA examiner is free;
- Self-declared medical certificate is free;
- Aviation headset is not required; and
- HST

TOTAL ~\$4000 if under 25 yrs, ~\$4800 if over 25 yrs

These figures, as at March 2017, are an approximation based on completing your license in the first season. If you require 2 seasons, add about \$1000 for the second season membership fee, SAC fee and additional flight time. How quickly you move forward depends upon how frequently you fly; often and you'll learn quickly, irregularly and your learning will be slow.

Once you solo, you can fly as much as you want, remaining close to our airport under supervision of an instructor, so that you can really hone your skills! And once you're licensed, you can fly as much as you want by purchasing one of our glider rental packages listed in our fee schedule (see Appendix 2) and learn to fly cross country hopping from thermal to thermal. This means that for a launch fee plus the glider rental charge, you can fly for several hours.

4. How Do I Proceed?

Becoming a licensed glider pilot is a challenge! We want you to succeed while having fun. You'll be teamed with an experienced member who will keep in touch with you and act as your mentor until you're licensed and afterward if you wish. This system makes learning enjoyable, efficient and cost effective. You should direct any questions/concerns to your mentor who will make certain that all of these are addressed.

Your mentor will contact you or meet you from time to time to ensure that:

- You are having fun;
- You are doing sufficient flying;
- To get some ideas from you about what SOSA is doing well; and
- What SOSA could do better.

5. Communications and SOSA Chat

Formal announcements will be e-mailed to you directly. www.sosaglidingclub.com has lots of information and important documents. You'll need to register to access the members section and the documents, Club by-laws, minutes of meetings, etc. All account information for fees is web-based so that you can always see the current balance of your account. This is accessed at:

<http://www.free-flight.info:8080/AwareIM/logonAdmin.html>

An informal SOSA discussion group is hosted by Yahoo. As a new member, you're strongly advised to participate in this group since you will find notices about instructor availability, weather, and general advice and discussion about activities at the Club. We encourage you to participate in these. You can join at:

<http://sports.groups.yahoo.com/group/sosa-members/>

6. What You Need To Start Learning How to Fly

There are a few things that you'll need to begin training. These include items you must bring each day you fly as well as other items such as your log book and other reading material that you will use at home.

Bring water and perhaps a lunch. You can use the refrigerator in the clubhouse. Many people bring a small cooler. A hat is essential. Your mentor will show you the type of hat that is best for gliding. These can be purchased at the clubhouse. Baseball caps are not ideal, as they restrict vertical vision and have buttons on the top that damage the glider canopy. Wear loose clothing and bring sunscreen. A good pair of non-polarized sunglasses is an essential item. (Polarized lenses prevent viewing of certain electronic displays, eg. GPS screens.) Once you're issued a student permit, you're required to have this with you while you are flying.

You'll receive **your** Pilot Training Record, PTR, when you begin flight training. This small blue booklet is issued and owned by SOSA to track your instruction and progress. This book is used to record information from each flight including its duration, the glider you flew, your instructor's name as well as your instructor's comments regarding your progress and suggestions for future progress. The PTR is a legal document required by Transport Canada and considered the **property of SOSA**. In addition to recording your flight information, your PTR indicates other tests you have successfully passed and will ultimately be used as a key piece of information to obtain your license. This PTR should remain at SOSA at all times. Do not take it home and don't lose it!

SOSA uses a modified school bus as a moveable flight operations centre. This flight bus has a specific shelf, organized alphabetically by surname, where your PTR is stored.

A personal log book is your record of flights completed. This differs from your PTR in that this log is yours to maintain and not a record for the instructor to judge your progress. Your log book is an important record that fulfills a Canadian Aviation Regulations (CARs) requirement that you must maintain your log book throughout your flying career.

You must familiarize yourself with the Operating Procedures of SOSA available at:

<http://www.sosaglidingclub.com>

(Don't forget to first register as a member.) Our procedures are constantly updated, so revisit this document at the beginning of each season.

Many books on gliding are aimed at the novice. A book approved by The Soaring Association of Canada (SAC) is Soar and Learn to Fly Gliders. It is an invaluable text and is contained in the kit you buy upon joining that includes log book and PTR, etc. Start reading Soar and

Learn to Fly Gliders early and re-read it throughout the course of your training. When you first read it, portions of it might not seem relevant or, in some cases, unclear. However, as you obtain more practical experience, it will make more sense! We urge you to refer to it often as it is fundamental reading for your first season of flying. Additionally, links to web sites devoted to the gliding are at:

<http://www.sosaglidingclub.com> and
https://www.youtube.com/channel/UCdEmrjmaxzI_pdx-BwyD3ug

You'll also receive a USB mass storage device that has our complete ground school as 450 PowerPoint slides, modules describing specific flight maneuvers, pilot operating handbooks and other valuable information. You should begin studying the ground school and modules right away as this will enhance and accelerate your progress.

7. Best Times for Flight Instruction

The ideal training periods are:

- Saturday/Sunday and holiday Mondays
 - 08:00h (9:00h Sundays) to 13:00h, and
 - 17:00h to sunset.
- Tuesday/Friday
 - 17:00h to sunset.

During these periods instructors are available. Speak with your mentor about your preferences. Early mornings and evenings are periods when the air is smooth and conditions are likely to be good for instruction. Come to SOSA during these periods! You'll find that the instructors will be busy flying their own or Club gliders after 13:00h on a good soaring day. Thus, arrive at SOSA as early as possible to reserve your flights. Most new members arrive at the Club between 08:15h to 08:30h on weekend mornings.

8. Your Initial Days at SOSA

When you come to SOSA bring the basics (sunblock, hat, sunglasses and appropriate clothing plus some water/lunch). Make sure that you are not tired and that you feel rested to start your day. Come early in the morning and learn how to remove the gliders from the hangar (termed unstacking) and how to complete the required Daily Inspection (DI) of a glider prior to flight.

Wear your name badge and introduce yourself as a new member. It'll take a while for us to get to know you and for you to get to know us. No member, regardless of his or her experience, can participate in the sport of gliding alone. We all help moving, rigging (assembling) and de-rigging gliders, launching them and keeping our Club facilities and equipment in good working order.

SOSA keeps its costs and flying charges low by operating on a volunteer basis and everyone, including the Board of Directors, is expected to contribute. The more you help other members, the more they'll help you. On average, you should help to launch at least one other glider for each flight you take. When you see someone who needs help getting their glider to the flight line, give them a hand. When a glider lands, hustle over and help

the pilot push the glider clear of the active runway. At the beginning of the day, help get ready for operations. At the end of the day, help stack the hangar and secure all equipment. After flying there is plenty of time to chat and meet new friends in our clubhouse, perhaps take advantage of the two propane barbeques and the "refreshment fridge". You're welcome to pitch a tent at SOSA (no charge), and to use the Club facilities, washrooms, showers, and a kitchen.

9. Moving Gliders

One of the first tasks you'll be asked to do is to help in moving gliders. These are very delicate and great care must be taken. You'll soon learn which parts of a glider are designed for pushing and which parts are not. If you forget, someone will very quickly point it out.

You can only push the leading (front) edge of the wings close to the fuselage, and certain other points like the nose or the leading edge of the vertical tail plane (fin). It depends on the glider, so if in doubt ask. This means that gliders are normally pushed backwards (but towed forwards). When moving a glider, let the pilot instruct you on exactly what they want you to do. If the pilot's instructions are not clear, do nothing until you're given clarification. Pushing on a glider in some spots can damage it.

For example, the canopy is an important area to avoid; it must be handled very carefully as it is extremely fragile. Use the words "my wing" when asked to hold the wing and "your wing" when you want the person at the other wing tip to take hold.

If you hear someone yell "stop" while moving a glider, immediately stop pushing, but don't let go of the glider.

10. Key People

Flying is controlled at the Flight Line Bus ("The bus") and you will find that everyone connected with organizing the flying activity is here. The bus acts as the SOSA mobile officer and the it is placed depending on wind direction to the active runway declared by the Tow Pilot.

Duty Instructor: This person wears a red bib and their main responsibility is to ensure the safe and efficient running of the flight line and operation. The Duty Instructor stays on the ground but you should introduce yourself and they will link you with an instructor for your flights if your mentor is not around.

Chief Flying Instructor: The CFI is an important person, as the CFI title implies, but you shouldn't shy away from introducing yourself. Ask the Duty Instructor whether the CFI is at the field and to point him out. The CFI will be most interested to meet you and talk to you about your progress. He may even want to take you for a flight and you certainly shouldn't turn him/her down. It will be a great experience!

Authorized Person: This person is SOSA's Transport Canada contact person and is responsible for issuing student permits and licenses.

We recommend that you select 3-4 instructors you feel comfortable with to form your “core” group of instructors. Each instructor has his or her own style and manner of teaching – you should fly with the instructors who best match your learning needs. You’re under no obligation to fly with an instructor with whom you feel uncomfortable.

11. Getting in Line on the Flight Sheet and Finding an Instructor

When you come to the field, ask the Time Keeper for the flight order sheet. This is a simple list of who is flying and in what order. Your job is then to find an instructor. The duty instructor can help you. Approach the instructor and establish their availability and let them know your order on the flight sheet. Retrieve your Pilot Training Record (PTR) from the shelf in the bus and hand it to the instructor. The instructor will give you a briefing before the flight as well as afterward.

Each day, you’ll have a minimum of 2 instructional flights in a row, (unless the first flight is longer than 30 minutes) and then wait in sequence for your next turn. Meanwhile, help by keeping things moving by running ropes, launching, hooking up and retrieving gliders. In helping out, you’ll get to know other members faster and learn important aspects of the airfield operation, its equipment and procedures. By doing this, you show a welcome willingness to do more than simply turn up, fly and disappear.

12. More Paper Work: The 3 Part Tickets

Gliding requires a consistent paper trail of activity for the Club and its members. This is a requirement of Transport Canada (TC), the agency responsible for air safety. Periodically, SOSA is inspected and audited by TC to ensure safe and regular operations consistent with Canadian Aviation Regulations (CAR's). As such, in addition to recording each flight in our PTR, you must make out a “flight ticket” or 3-part pink ticket to indicate your intention to fly. This ticket is also used to keep track of costs and overall flight activity. You obtain these tickets at the window of the flight bus, and you will need to fill these out before each flight. You will need to indicate which glider you intend to fly and who will be your instructor. Your membership number must be added to the ticket to help identify your flight. Do not fly without having filled out a ticket as it disrupts the entire operation and you’ll likely have to buy everyone a beer after flying! **Do not place your glider on the flight line until you have the completed yellow copy of this in your hand.**

Here’s the procedure!

1. The flight tickets have a pink, white and new yellow copy on the back. Pilots will need to enter the pre-launch information from the ticket into the Free Flight software which will generate a flight number. Write the flight number on the ticket as always, but now pull off the yellow copy from the back and take it to the flight-line.
2. The yellow ticket with flight number filled in (unless the system is down) becomes your permission to launch. All gliders are checked for a completed yellow ticket. If you are in the 3rd, 4th or 5th launch position without a completed yellow ticket, you will be asked to pull your glider off the line and put it back on once you have a completed ticket.

3. You must log-on to an account where up-to-date information on your charges and payments is available.

It is best to fill out two of these pink tickets at a time (one for each of your initial flights) and leave them with the Assistant Field Manager (the person in the bus recording the flights). He/she will then mark your exact flight times to the minute on your flight ticket. Once you have completed your flight, a copy of the flight ticket will be provided to you. These are your records of your activity to transcribe into your PTR. Keep these copies safe as you may need to refer to them in the future.

The flight ticket should show the flying exercises to be executed and initialed by the Instructor and the student.

Once you have completed your flight, make sure that you spend some time with your instructor who will make comments in your PTR regarding your flight. He/she will grade each activity you undertook, comment on your progress and make concrete suggestions for improvement

13. Typical Elements of Instruction

Let your instructor know where you are in the flight line and they will give you a sense of when your flight will take place. Meanwhile the instructor will want to see your PTR and give you some ground notes based on the conditions, weather and your flying stage. Don't forget to drink lots of fluids and visit the "Johnny" before your flight. You will want to be as comfortable as possible. The following is a typical sequence of events that will accompany each training flight.

- Your instructor will plan the flights.
- On the ground the instructor will explain what tasks or maneuvers are to be demonstrated, and then practiced by you.
- The instructor will explain and expect you to undertake pre-flight checks with him or her.
- Follow through on the dual controls as your instructor demonstrates maneuvers from lookout, take off, towing, turning, soaring, lookout, circuit planning, smooth runway approach and landing.
- You'll hear "You have control" and the instructor will ask you to repeat each maneuver in turn and your progress will be safely monitored.
- You'll hear "I have control" and the instructor will demonstrate again to perfect the maneuver so that ultimately you will be able to do this solo.
- After each flight a de-briefing session will be undertaken where the instructor will give you important feedback on your progress.
- Your Pilot Training Record will be carefully graded and the instructor will give some useful written comments.

14. Ground School

One of the TC requirements for writing your gliding license exam is 15 hours of ground school. SOSA has the best ground school in Canada. It conveys a wide range of information including air laws, navigation, flight instrumentation, human and physiologic factors as well as meteorology. This is basic information you will need to prepare for gliding in general and your license exam in particular. Participating in ground school is a requirement for you to achieve a license. Ask your instructor for information regarding where and when our ground school will be held.

15. Asking Questions and Seeking Help

Ask questions! Don't hesitate to ask questions of other members. It is by far the easiest and safest way to learn. Feel free to ask any member for help. Chances are that they will soon be asking you to return the favour. It is nearly impossible to get a glider into or out of the hangar or get a Club glider to the flight line by yourself. You cannot rig or de-rig a glider by yourself. If you ever land-out in a field, you cannot retrieve the glider by yourself. Never attempt to perform a task unless you are 100% sure how to do the job. Never "guess" – teamwork is the name of the game! Just remember to say thanks, and repay the favour.

16. Accounts

At the end of the day, you know how many flights you had and can closely estimate what your charge for towing and glider rental should be. SOSA requires you to pay for your flights before you leave the field. Our Club cannot operate as a line of credit. The best way to make a payment is by debit card. There is a mobile payment terminal at the flight line each day and at the end of the day it is stored near the entrance to the clubhouse. Quick, easy and painless!

Alternately, by Interac email transfers to treasurer@sosaglidingclub.com or if you are a TD Canada Trust customer you can arrange a personal payee within EasyWeb to transfer funds electronically. Payment by cheque is also possible and at the entrance to the SOSA clubhouse, there is a small desk/shelf with a slot in the top. Place your cheque in an envelope found on the shelf below and deposit it in the slot. Write your SOSA number on the cheque and on the envelope. Generally, credit card payments are discouraged by members as the merchant fees become a significant expense for the Club. As a result, there is a \$10 surcharge on all credit card payments to cover the additional costs.

Many members maintain a positive account balance by depositing a significant sum, perhaps several hundred dollars at a time.

All account information is available to you online via the Club's Free Flight system. The system will show you up to date balance information. It is each member's responsibility to check their balance at least weekly when you are flying and keep your account in good standing. The system is also used at the flight line to record the take-off and landing time of each flight. If your account is in a debit position, the system will flag your flight in RED

and you will not be allowed to launch if you have a large balance due. Logon to the site here:

<http://www.free-flight.info:8080/AwareIM/logonAdmin.html>

SOSA's policy on flying accounts is that all members are expected to maintain a zero or positive balance and to pay for their flying before they leave the airport at the end of each flying day.

17. Duty Crew at the Flight Line

To operate the flight line, SOSA has three (3) duty volunteers as described in the SOSA Operation Procedures.

- **Field Manager** whose job it is to manage the flight line and pair pilots with gliders based on the list;
- **Time Keeper**, usually a new member, whose job is to record the flying times. As a new member you will be assigned a half day at the weekend, typically, not more than once per month;
- **Duty Instructor** who will be looking after safety and flight operations.

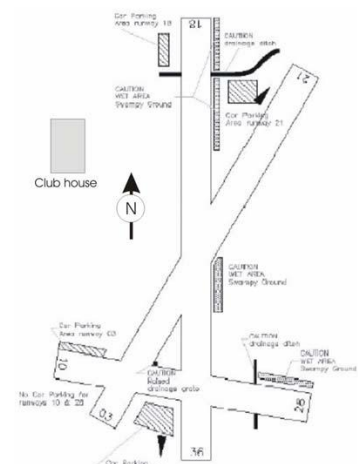
18. The Club Gliders: Jargon and Other Aviation Speak

Pilots sometimes sound as though they speak another language. Soon you will hear gliders being referred to by the registration numbers (ZULU HOTEL) or by their manufacture type, such as K-21 or JUNIOR. Some gliders have imaginative nick names. So how do you keep all this aviation speak straight? You'll learn this vernacular quickly! To give you some information, the Club training gliders and their vital statistics are in Appendix 3. While these data are incomplete, they'll help you identify the gliders and their features. Study the full technical detail sheet in the bus and your USB mass storage device documents for each glider type.

19. The Field at SOSA

SOSA has three (3) runways. The figure below shows the field layout along with the clubhouse and hangars. The runways can be used in either direction, thus six (6) landing patterns are possible depending on wind conditions.

A runway is identified on the basis of its compass direction. For example, 36, the longest runway, is along a North-South direction. You could land or take-off from this runway by heading North along heading 360 degrees or by heading south along heading 180 degrees. You will hear pilots referring to the runways using these numbers. Instead of saying Runway 360, they'll say Runway 3, 6. Other options are 03 pronounced zero, three; 1,0; 1,8; 2,1; and 2,8; corresponding to 030, 100, 180, 210 and 280



degrees, respectively. Study the figure above and make sure that you understand the meaning of these numbers. At some point, you will be asked to land on one of these runways using this naming protocol.

20. Be Aware of Runway Activity

When other gliders are in the air, there is an “active” runway in use. It is dangerous to assume that the active runway is the only runway in use, since gliders might use any runway in an emergency (or simulated emergency during an instructional flight). Since gliders are silent, you will not detect them approaching unless you are looking for them. Assume that a glider or tow plane can land on any runway, from any direction, at any time. A good lookout is always required before crossing. Promptly, cross the runway at right angles, not diagonally, as the latter requires more time and you can become a hazard for an approaching aircraft. Spend as little time on the runways as possible.

You should also watch out for visitors, animals, children, etc. who may wander onto a runway. When this happens, politely but firmly ask these guests to leave the runway immediately.

21. Be Aware of the Tow Rope

The towrope is about 175' long and is used to temporarily connect the glider to the tow plane. When the tow plane is aloft, and the glider has released, the towrope hangs down from the tow plane at about a 45 degrees. As the tow plane approaches the runway, be aware of this rope as being struck by it causes serious injury.

22. Be Aware of the Tow Plane and Propeller

When a powered airplane engine is not operating, never touch the propeller. Aircraft engines, unlike automobile engines, can start with only a slight turn of the propeller. Always walk behind an airplane whenever possible and not in front of it. In the vicinity of an airplane, make eye contact with the pilot so he/she is aware of you.

23. Launching a Glider

Before giving the “take up tow rope slack” signal, check for other aircraft traffic, runway obstructions, etc. that might be a factor and delay the launch until any hazard is eliminated. Do not launch if you notice that a pilot has neglected to retract and lock the dive brakes or remove the tail dolly. Occasionally, a pilot might purposely keep the spoilers open in order to keep the glider from rolling forward as the slack comes out of the towrope. Some very experienced pilots may also sometimes open their spoilers to improve take off control on a

crosswind or when carrying a heavy load of water ballast. Do not allow takeoff unless you know that the pilot wants the spoilers open.

As a towed glider begins its takeoff, a wing must be supported until the gliders speed is sufficient for the flight controls to become effective. This is accomplished by a member holding the wing tip and running a few metres with it, a maneuver termed wing running. Running a wing is easy! Have someone show you how to do this. A common mistake is running too far. Four or five steps is usually sufficient. Another mistake is holding up or down pressure on the wing. In this situation, when you release the wing, it will either pop up or down, respectively. To avoid this, slowly let the wing do what it wants to do, so that the pilot senses that he/she needs to make a correction.

24. Retrieving a Glider

An initial task that you will learn is how to retrieve a glider. You'll do this using a Gator or golf cart. Ask someone to show the safe operation of these vehicles before conducting a retrieve. Make sure that you have the tail dolly, if required, for the glider you intend to retrieve; not all gliders require dollies.

Do not drive on the runway; drive beside it (well behind the foam pylons). When you reach a location directly across from the glider, check for air traffic, and make sure that the next glider and tow plane are not going to launch. Then cross the runway at a right angle and exit the on the opposite side. Do not stop on the runway! The pilot will show you how the retrieve vehicle towrope is connected to the glider.

Someone will be holding the one wing while you drive the retrieve vehicle. After you and the pilot have thoroughly checked to ensure that it is safe to cross the runway, do so without delay and then return to the flight line well behind the foam pylons. Watch the wing walker to make sure that he/she is walking at a comfortable speed. He/she might signal to speed up or slow down. Watch where to tow your glider.

When you are walking the wing, keep the wings level and walk on the side of the glider where you that is usually on the wing farthest from the runway, but be aware of both wings at all times.

Approaching the bus, be aware that you might be approaching a lot of other gliders and traffic. To avoid costly collisions, follow instructions from your wing-walker. Ask the Field Manager where to position the glider for its next flight. Stop abruptly if asked to do so and place the wing closest to the runway on the ground.

25. Come to Fly Often!!!

Learning to fly gliders is a demanding, time-consuming activity. Your learning and skills will develop in a series of steps or phases. Early in your training you might find some elements of training to be both demanding and intimidating. Do not get discouraged! As your training progresses, what appeared difficult to grasp initially will become second nature.

You will optimize your training program by committing to attend SOSA on a regular basis for your first 35 to 40 training flights. Under ideal circumstances, you should plan for a

minimum of three to four flights each time you come to the Club. Experience has shown that more than 4 flights per day can quickly exhaust the student and the ability to absorb new skills begins to fall sharply.

Some new members fall into the trap of waiting for ideal weather before they show up at SOSA. This is a big mistake. Even if the weather appears marginal, training flights will likely be flown. If the weather deteriorates, you will still have to try a lesson on the simulator or do some ground instruction. For example, if you spend 10 to 15 minutes at the blackboard understanding how circuits are flown, this time investment will be very useful when you next get an opportunity to fly. Most new members are quite surprised at the amount of gliding lore they pick up simply by hanging around the field.

26. Progression Toward Your Solo Flight

As you acquire more experience, your instructors guide you through a planned progression of skills. Develop them as needed at your pace with the ultimate goal of gaining confidence and experience. The progression of skills is listed in Appendix 4 and is also outlined on the second page of your PTR.

Many tasks will be unfamiliar and seem impossible. It is generally agreed that the first 10 flights will seem somewhat chaotic and daunting. After this, things will begin to fall into place. Ongoing experience will be needed to develop and sharpen each skill. By the time you have completed approximately 30-40 flights you will likely be flying with a level of confidence and should start to think about doing SOLO flights.

27. Identification, Medical, Radio and Pre-Solo Exams

Once you are flying, you will have a great experience and enjoy all the challenges that gliding offers. You will focus on this and want more. Below, there are a few other tasks that you should get out of the way early (around your 10th flight) to ensure that when you are ready to do your solo flight, you can do so without delay. Many students waste needless time by not completing these tasks early in their program.

Your Identification: Bring your passport or birth certificate and two copies of the picture page of your passport to the Club as proof of Canadian citizenship or landed immigrant status. Do this early in your instruction. Show these to the Authorized Person who will keep the copies as part of your file for your Student Permit. You require the Authorized Person's signature in your PTR to show that you have completed this task.

Your Medical: The CFI will give you a form (included as part of your new member kit) that you will complete with regard to your medical fitness to fly. You simply affirm that you are fit to fly by answering questions on this form. In some cases, a certification from a Canadian Aviation Medical Examiner (CAME) might be required. Not all physicians are certified to indicate this and if you fall into this category, your mentor will give you further guidance. Do this early, as medical certification can delay flying SOLO by as much as a year! Start early on this.

Radio Operators Certificate: You must acquire certification to use an aviation radio. This involves studying laws regarding the use of radios and standards for their operation. A copy of the Radio Operators Manual is available at the clubhouse. It is entitled "RIC-21 Study Guide for the Radiotelephone Operator's Restricted Certificate (Aeronautical)" from Industry Canada. This is available at:

<http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/en/sf01397e.html>

Read it, listen to the radio calls around the Club and learn how to make your own calls. Then contact your mentor who will arrange for you to take short test to ensure that you understand proper use of the radio when flying. Once you have passed this, you will then receive a sign-off in your PTR for this task and make an application for a radio certificate that will be mailed. You will need to keep this certificate in a safe place and must have it with you when flying. You do not need to have this certificate if you are flying solo, i.e. under the supervision of an instructor who possesses the certificate.

Pre-Solo Exam: You must pass a pre-solo written examination prior being allowed to solo. Preparing for this examination is not be onerous. Some information you will need to learn is presented in "Soaring and Learn to Fly Gliders". Not everything that is required can be found here.

You must be aware of the area around SOSA which you should have learned from your various flights. Also, a number of "rules of the road" and issues related to hazards of flying related to hypoxia, alcohol and anesthetics need to be understood. You can consult the SOSA web site and your USB mass storage device ground school. Another very useful source of information is published by PSTAR that is for general aviation but much is not applicable to gliders. Please consult web site for this information. Work through these and you will be well prepared for the pre-solo test.

<http://www.offtraining.com/pstar.htm>

When you feel you are ready to write the exam, speak to your mentor and he/she will help you to arrange this. Once you have written and passed the exam, a sign-off will be made in your PTR from an "authorized person". The signature page on your PTR.

Student Permit: Once you have passed the medical, and pre-solo exams and are signed off in your PTR, the Authorized Person will issue you a student permit. The student permit should be kept with you and available for your instructor when flying. Get this done as early as you can. The goal is to present the needed documentation, learn the required material and pass the various tests so that you can concentrate on flying. Then, once you are recommended for solo, you can do so without interruption. SOSA urges you to do this prior to your 20th flight.

28. Recommendation for SOLO

Prior to going solo, you must demonstrate proficiency at flying and have two recommendations, one of which must be from a "check-out instructor". You will need to have gone through the progression of flying skills listed in the front page of your PTR. The number of flights can vary and depends, in part, on the frequency that you fly and take instruction. However, you should expect that you should be approaching your SOLO flight after you have completed approximately 40-50 flights.

29. Your SOLO Flight

Your instructor or mentor will choose a good day, with benign conditions. A calm (5 kts) summer evening is perfect. You will want to focus on a thorough pre-flight check, a good tow, smooth coordinated turns, keeping track of your location and lookout, planning a good circuit and performing a smooth landing. You may have a few last minute tips from your instructor and mentor who will be there for this big event!!

Once you have completed your solo, beware as there are many pagan rites of passage for the solo pilot at SOSA. One of great importance is the fabled "beer list". This is a time to recognize all those who volunteered their time to get you into the air. You simply buy a case of beer and put it in the clubhouse fridge. Then post a list up on the kitchen door in the clubhouse of all those people who you would like to recognize. All get to enjoy, but your listed people have preference.

30. What's Next After You Go Solo?

The thrill of going solo is something that will remain with you for years to come. It is an achievement that all the SOSA pilots appreciate and respect. However, it is really just the beginning of another stage in your flying experience and the learning process. You will still need to link with an instructor for each solo flight much like the pre-solo stage. The instructor will require that you maintain the PTR and complete the Transport Canada ("TC") training record for each flight.

There is a lot to learn post-solo and now that you have the basic skills, instructors will concentrate on honing those skills, along with increasing your awareness and judgment as a pilot. To this end, every second or third flight will be with an instructor as you make your way through the post solo exercises. Your solo flights must be authorized (signed off) by an instructor: they are intended for you to practice specific exercises on your own.

You will be encouraged to attempt achievement or "badge" flights, such as a B or C badge that involves you finding thermals and staying aloft for more than ½ and 1 hour respectively; consult (http://www.sac.ca/documents/badge_form.pdf). Once you have completed one of these you can apply to the Federation Aeronautique Internationale to register your achievement flights and they will issue you will a passbook in which you record and document these. By registering these with the FAI, your achievement will be certified by an international body recognized by gliding clubs throughout the world.

While achieving these badges is fun, your real goal should be to get your gliding license.

31. Going for Your Licence

Going for your licence is a steady progression of experience, both practical flying skills and theoretical study and that once completed gives an immense sense of pride and achievement.

32. Fly Often

Your post solo experience is monitored by the SOSA instructor body but you should, from the post solo stage, take some charge of your progression, with your mentor acting as guardian angel and general advisor. Your fun factor is getting higher and you will find that you are able to undertake tasks more intuitively now. Don't let your guard down and keep listening to the instructor's voice over your shoulder even if the instructor is not there.

Sharpen your skills, be critical and aim for that perfect coordinated turn, great circuit, shorter landing etc. Fly often.

33. Challenge Yourself by Flying Other Aircraft

After a minimum of 5 solo flights in a two seat trainer you should start flying in the Junior for all solo flights so that two seat training glider resources are not used up by solo flying while students wait on the ground. The transition to the Junior is done by approaching your instructor and simply asking whether they consider you to be capable. If you gain their approval, they will give you a careful briefing

34. Ground School Examination

The glider pilot license demands a TC test and your preparation for this is in the attendance and completion of SOSA's Ground School as well as further reading of some texts.

This learning will give you a greater understanding of your sport. Proceed with the examination when you have completed 50% of your flight training. The TC test centers locally are:

- Hamilton International Airport; and
- 4900 Yonge Street Toronto 2nd floor (416) 952-6033.

Call ahead of time to check the arrangements. The 50 examination questions are multiple-choice, computer generated and you answer on-line while being invigilated by a TC official. You have 2 hours to complete the test and your result is given immediately. You are expected to achieve a 60% grade to pass.

The minimum criteria for licensing are.

- At least 16 years old; and
- Flying time total of 6 hours of which 1 hour is dual, 2 hours solo and 20 take offs and landings

35. Flight Test

When you feel confident about your flying you should ask an instructor about undergoing a flight test. If recommended, a SOSA flight test examiner will take you for flights during which a full range of flying skills are challenged and graded. An outline of the test is

available in the bus and at SOSA's web site. Ask your instructor to help arrange the time and date for the flight test. Be patient but have a firm conviction and confidence that you can do it. The examiner will be delighted to give you a passing grade but don't be discouraged by some advice about honing the skills further before a passing grade is given. Once you have completed these various steps you will receive final approval for your license.

36. Cross Country Challenges

Going solo and completing your license is just the beginning of your soaring career. It's an ongoing process of continuous growth and improvement. A number of "Badges" have been created to test and hone your skills..

36.1 Bronze Badge

In soaring, cross country flying is often set out as an out and back or triangle route which returns you to your departure airfield. Flying this route is termed a task. The Bronze Badge is an intermediate badge that will familiarize you with the skills involved in cross-country soaring. An instructor conducts a Bronze Badge clinic each season aimed at post-solo pilots who are ready for more challenge which bridges the gap between the first level "C" badge (1h flight) and the more difficult Silver Badge.

The required exercises are:

- Three (3) consecutive spot landings. An area is marked out on the runway approximately 50 metres wide by 150 metres long. The glider is to cross the threshold at a minimum height of 1 metre, and come to rest before the 150 metre mark.
- Off-field landing exercises (Dual) – Site selection and circuit planning and completion.
- Map reading and final glide exercises (Dual). Includes a final glide from a distance of about 5 miles, to arrive at the SOSA field with a minimum of 1000 feet above ground, to allow sufficient height for the circuit.
- Rigging/derigging/trailering the glider

36.2 Silver Badge

The Silver Badge is your first real step into the world of cross-country soaring. The badge requires completing 3 tasks on your own. These don't all need to be done at the same time. They are:

- Complete a 5 hour endurance flight.
- Gain 1000 metres of altitude, un-assisted, during a single flight.
- Fly 50 kilometres.

While completing this Badge, you will end up flying beyond gliding distance from the field for the first time on your own. The Bronze Badge will provide you with the tools to accomplish this task, but the experience of doing it on your own for the first time will not be forgotten. It is very important to talk with your mentor, the instructors, an Official

Observer, and other Club members and ask many questions. Everyone will help you in your preparation.

You will need a crew for your 50 km flight. The role of the crew consisting of at least one member, is to recover you and the glider if you land out. Your mentor or instructor will explain how to organize a crew and what they will need.

There is a cross country flying checklist as part of the Ground School course in your USB mass storage device. You are encouraged to review this as part of your flight planning.

Once you have completed your Silver Badge, you can take part in the cross-country clinics offered each year where you will go places you never thought possible.

37. Safety

People will frequently ask: "How safe is gliding?".

This is a good question! It is difficult to make absolute statements about safety, or to compare and rank the safety of different activities. The SOSA Release Form you are required to sign is quite explicit.

But it is also useful to know some facts and to appreciate the risks of any new activity. Knowledge of the risks tends to reduce their likelihood of happening. Here are some facts and opinions.

Gliding safety often depends upon the continuous and consistent application of many procedures and practices based upon decades of operational experience. The dangers become greater when people start bending or breaking these rules, whether they realize it or not beforehand.

Like the rest of aviation, most gliding accidents worldwide are blamed on pilot error, usually in a serviceable glider. Sometimes this is due to the pilot taking obvious risks like flying into bad weather or flying over un-landable terrain. Sometimes the pilot knowingly exceeds his/her abilities by venturing beyond their competence or experience. There is usually a sequence of individually avoidable events, until the last one that makes the accident unavoidable.

Air Accidents Investigation Board data suggests that gliding is somewhat more dangerous than flying light powered aircraft; however, gliding is safer than hang gliding, and safer still than paragliding.

A well-trained glider pilot who understands his or her limitations, who flies regularly and practices sometimes little-used skills is much less likely to have an accident. Safety is very much under the control of the individual and is not a game of chance. The best way to keep safe is to be trained and current, to apply diligently what you have learned, not to take risks or shortcuts, and to know and stay within your limits. If you are not sure about anything, ask!

If you have not experienced something previously, or are out of practice, then ask for a dual flight(s) with an instructor. Examples of this might be field landings, landing in a strong

crosswind, or a sideslip approach without airbrakes. SOSA has rules that require one or more check flights after a lapse in flying, especially for low-time pilots using Club gliders. Remember the old saying:

"I'd rather be down here wishing I were up there, than up there wishing I were down here."

It can also be comforting to know that gliders are increasingly built for safety. As technology has evolved, designers have paid more attention to safety while having to meet the requirements of good gliding & soaring performance.

We hope that some of these insights do not cause undue concern to the aspiring pilot. It is better to enter any new sporting activity with both eyes wide open. In particular, an understanding of the risks makes it easier to avoid them. Gliding is a regulated sport, with government mandated standards of training and supervision that are regularly refined to maximize safety. If we all stick to the rules and avoid taking unnecessary risks, then the sport will continue to be safe.

Appendix A – Cost of Learning to Fly Gliders vs Powered Aircraft

Gliding is a fantastic gateway to flying! Since you'll learn skills that are applicable to flying any aircraft, gliding opens the door to both recreational and professional flying. Unlike learning to fly a powered aircraft, glider flight training is inexpensive. Let's have a look at why this is the case.

Obtaining a private pilot license for a single engine aircraft is expensive. Here's why!

- Requires 60-80 hr of flying to pass the Transport Canada Flight Test. The cost associated with this rental aircraft training, both with a flight instructor and solo, is about \$11,000;
- Pre- and post- flight briefings, ground school and required study materials ~\$2,000;
- Transport Canada multiple choice examination and flight test fees ~\$800;
- Aviation headset ~\$1,000;
- Aviation medical examination ~\$200;
- License and medical certificate issuance fee \$150; and
- HST ~\$2,000.

TOTAL over \$17,000

You might complete the in-flight training in about 65hr if you fly several times per week and save \$2,000 or so, but you won't learn to fly within the 45 hour minimum advertised by most flight schools! And after you've obtained your license, a Cessna 172 will run \$150 to over \$200 per hour plus HST to rent.

Now let's explore why learning to fly a glider is so much less expensive.

Glider flying in Canada is conducted by clubs. The members of these organizations freely volunteer their time to keep training and operating costs as low as possible. Due to this, at SOSA, obtaining a glider license is inexpensive, costing about \$4,800 or less which includes our Club membership fees.

Here's why!

- Club membership is \$200 under age 25 yrs, \$650 for others;
- Initiation fee \$200 for first 3 yrs if over 25 yrs. No fee under age 25 yrs;
- Flight training and ground briefings by Transport Canada certified SOSA instructors are free;
- Glider rental for ~60h of training and aerotows and winch launching ~\$3,000;
- Ground school and required materials \$200;
- Soaring Association of Canada membership fee \$80;
- Transport Canada multiple choice examination \$110;
- Flight test by a Transport Canada-approved SOSA examiner is free;
- Self-declared medical certificate is free;
- Aviation headset is not required; and
- HST.

TOTAL ~\$4,000 if under 25 yrs, ~\$4,800 if over 25 yrs

And here's even more good news! Once you solo you can fly as much as you want, remaining close to our airport under supervision of an instructor. This means that you can really hone your skills! And once you're licensed, you can fly as much as you want by purchasing one of our glider rental packages listed in our fee schedule (\$0.98 or less per minute) and learn to fly cross country hopping from thermal to thermal. This means

that for a \$40 launch fee plus the glider rental, you can fly for several hours at much less cost compared to renting a Cessna 172 for the same period of time!

So join SOSA and get started! You won't believe how much fun gliding is!

Visit us for more information at www.sosaglidingclub.com

Appendix B – Fees

Fees -- Effective February 25th, 2017

Membership and rental fees same as 2016. First 1000 feet of tow up \$2.00, winch up \$1.00, all intros up \$10.00, 5-flight package up \$25.00

MEMBERSHIP

Full	1	\$650.00
Junior/Air Cadet	1	\$200.00
Non-Flying		\$200.00
Family	1	\$1.00
Initiation Fee	2	\$600.00
SAC Fee*		\$80.00
Five Flight Instructional Package*	3	\$575.00

GLIDERS

per minute		\$0.98
overtime charge per minute	4	\$2.00
Introductory Flight (weekend/holiday)*	5	\$190.00
Introductory Flight (weekday)*	5	\$150.00
Introductory Flight (winch)*	5	\$110.00
Flat Rates:		
All gliders - unlimited	6	\$999.00
All gliders - 12 hr block	6	\$535.00
All gliders - 12 hr block Junior	6	\$410.00
Upgrade from 12 hr to unlimited		\$535.00

TOWS

Winch Launch		\$8.50
First 1,000 feet	7	\$18.50
Each additional 500 feet	7	\$7.00
X-country Retrieves per tach Hr.	8	\$150.00

HANGARAGE

Large Hangar	9	\$300.00
Small Hangar	9	\$500.00
Glider Trailer Parking	10	\$55.00
Winter Storage	10	\$55.00

Notes to the 2017 Fee schedule:

HST applies to all fees unless otherwise noted by " * " "

- Half year membership available to first year members 30 July (\$325 Full, \$100 Junior), Quarter year for first year members 17 Sep (\$163 Full, \$50 Junior). Junior members must be 25 or younger at the time of joining. Family category is for spouses, parents and children of flying members and is a non-flying membership, camping and glider trailer privileges are not included.
- Initiation fees are payable by all new full members and are payable at \$200 in each of the first three years of membership. They are due at the time the member joins the club, regardless of whether they are full, half or quarter year members.
- Can be sold to one person once only, non-refundable, all flights must be flown by purchaser. \$100 balance transferable upon flying membership. Includes 5 tows to 2000 ft and 30 min maximum glider flights. Expires 30 days from the date of first flight or at the end of the second season from date of purchase.
- Overtime charges apply to club ships on weekends but not to the high performance singles, (available on a half day basis for cross-country flights with permission of the duty instructor). Overtime can be waived via authorization by the Field Manager on the flight card. A \$5 fee will be charged to remove overtime charges after previous month is closed.
- HST included. Max tow height is 3000'; intro pilots are encouraged to get off tow sooner if conditions allow; 30 minutes max; extra time is billed to intro pilot at \$0.98 per minute for all intro flights exceeding 35 minutes regardless of pilots flat rate plan.
- Flat rates are non-refundable and do not carry over year-to-year. Flat rate time is not transferable between members except to carry passengers on behalf of the flat rate member. All flights before a flat rate purchase, or upon the expiration of a 12 hour block are billed at the per minute rate. May be paid in six monthly installments (1 April - 1 Sept). First instalment is due the earliest of 1 Apr or the first flight of the year. Unlimited instalments are \$183. 12 hour instalments are \$98 (\$75 for Juniors).
- Rope Breaks are minimum 1000 ft tow fee. Fuel surcharges of \$2 for the first 1000 and \$3 for each additional 1000 may be charged incrementally as fuel prices increase.
- Minimum charge for a x-country retrieve is 0.33 tach hours.
- Hangar spaces are allocated based on the date a cheque is submitted and club seniority. The earliest date that is used to allocate spaces is the AGM. Fee does not include glider trailer parking or winter storage. Spaces are allocated to a specific glider and may not be shared.

CAMPING

House trailer/RV -flying member	11	\$160.00
House trailer/RV -non-fly member	11	\$550.00
Non-flying Senior Member	11	\$160.00
Power Usage	12	as used
Trailer disposal fee	13	see note
One time power connection charge		\$135.00

OTHER FEES

Intro Flight Video*		\$45.00
Ground School		\$200.00
Credit Card Admin Fee	14	\$10.00
Missed Duty Fee		\$50.00
Debit Balance Fee	15	\$35.00
NSF Fee		\$35.00
Dormant Account Maintenance	16	\$100.00

*HST included

10. For all private owners including those who have paid hangar fees. Members wishing to park more than one trailer must get prior permission from the board. Non-flying members winter storage cost is \$300

11. Trailer Fees are billed on 1 May. Additional trailers are billed at \$412. Only members are entitled to park a trailer of any kind or RV on Club property.

12. A \$200 fee is assessed at the beginning of the season or at member (with approved camper) registration. At the end of the season all electrical usage is divided equally amongst power users, any credits or overage charges will be applied. If you do not wish to be connected to the camp ground power grid, you must inform the Board in writing at time of registration.

13. Cost of trailer removal plus a club fee of \$200

14. Admin fee charged by club to member when payment is made using credit card.

15. Per month while in debit balance.

16. Billed annually to dormant accounts at the end of 2 years of inactivity.

Payment Options for 2017: 1) Debit Card 2) Credit Card (\$10 fee applies, see note 14) 3) Cheque (note \$35.00 NSF Fee) 4) Interac Email Transfer 5) TD Bank Transfer (you must bank with TD). **PLEASE NOTE WE WILL NO LONGER ACCEPT CASH AS PAYMENT FROM SOSA MEMBERS OR THE GENERAL PUBLIC, INCLUDING WALK-ON INTROS.**