



New Members Introduction



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SOSA New member and Student Members' Kit

First Flight to Going Solo and Getting your Licence

1. - Introduction

Welcome to SOSA Gliding Club. We are delighted to have you join us and we sincerely hope that you will be a member for many years. SOSA Gliding Club was founded in 1948 and is one of the oldest and largest in Canada, with approximately 150 members. It is well known for its standard of excellence throughout North America with many pilots winning competition awards from around the world. We have been operating from our location on Cooper Road near Rockton since 1966. SOSA is a non-profit organization that runs on the basis of volunteer labour. Nobody gets paid at SOSA. Everyone from Tow Pilot, Instructor, Timekeeper, wing runner, and grass cutter serves on a voluntary basis and everyone gives freely of his/her time to make SOSA function smoothly.

The single most important tip for a new member is to make yourself at home, enjoy our Club and above all have some fun. At first, you may find the procedures, aircraft, facilities and people unfamiliar. This guide has been prepared to assist you in finding your way around SOSA and to learn the most from your experience at SOSA. It is not intended to be a complete guide to soaring. Rather, it focuses on some important operational issues at SOSA and key steps along your way as you learn about flying gliders and eventually going solo, getting your licence and beyond. It will introduce important issues regarding safety, what you can expect at various times during your learning, what you can expect from other members of SOSA and what they will expect from you.

Mission Statement

The SOSA Gliding Club ("SOSA") mission is to foster the art, science and practice of soaring, to the sport's highest standards.

2. - Facilities

The club owns the airfield, which has three runways, 2 hangars, a workshop, a clubhouse, and campgrounds. The club fleet of gliders consists of three towplanes and a variety of two seat and single seat gliders. In addition, there are about 30 privately owned gliders at the field. You will also notice a number of trailers parked throughout the property. These are owned by members who stay over the weekend to enjoy as

much flying as possible. All members work together to make SOSA a thriving community of flying enthusiasts.

3. - How much is this going to Cost?

A natural question at this point would be to wonder how much your first season of gliding is going to cost as you move toward going solo. Naturally, this will depend on your own dedication to learning and the pace you choose to follow. However, the following table will give you a sense of an active program of flying for a single season and the corresponding costs if you are a new student. Power pilots converting will usually require fewer flights to go solo.

<i>Range of Costs for Student (ab initio)</i>				
<i>Item</i>	<i>No. of Flights</i>	<i>\$/Unit</i>	<i>Total Low ¹</i>	<i>Total High ²</i>
<i>SOSA Membership</i>			500	500
<i>SAC Membership</i>			120	120
<i>One time initiation Fee</i>		\$600 over 3 years	200	200
<i>Glider Rental</i>			480	820
<i>Tows to 2,000 ft.</i>	40-70	\$22.50	900	1,575
<i>HST</i>			270	402
<i>Total</i>			2,350	3,497
¹ assuming a 12 hour block				
² assuming an unlimited time				

The costs include membership at SOSA, a one-time initiation fee to the club, membership in the Soaring Association of Canada, the cost of individual tows and finally the cost to rent the gliders. In brief, you should expect to pay between \$2,350 and \$3,500 with everything included. This will likely get you to a situation where you will be flying solo and will have enjoyed between 40 and 70 flights depending on your time and energy.

For Junior pilots under the age of 26 the costs are less as follows:-

<i>Range of Costs for Student (ab initio)</i>				
<i>Item</i>	<i>No. of Flights</i>	<i>\$/Unit</i>	<i>Total Low</i>	<i>Total High</i>
<i>SOSA Membership</i>			199	199
<i>SAC Membership</i>			60	60
<i>Glider Rental</i>			380	775
<i>Tows to 2,000 ft.</i>	40-70	\$22.50	900	1,575
<i>HST all costs ex SAC</i>			192	331
<i>Total</i>			1,671	2,880

4. - How Do I Proceed?

Once you have made the decision to try soaring, there are a few ways you can get started. A common first step is to take an “Introductory flight” for \$140 during which a licenced pilot will take you on a flight for about 20 minutes. This will show you how gliders work and allow you to experience the thrill of silent flight. This is usually sufficient to get you hooked.

At this point, you may then decide to try it a bit more before taking the plunge. In this case, one can purchase a 5-flight package for \$367 (\$341 before July 1st 2010). This is a relatively inexpensive way to get a real introduction to soaring. These five flights are intended to give you a feel for what gliding is all about. You will frequently take over the controls and do gentle maneuvers. Your instructor will demonstrate the art of riding thermals, gentle stalls and steeper turns. All of this will help determine if un-powered flying is for you. Once you have made the decision to learn to fly, join the club and you will start your journey on becoming a pilot!

4.1 - Your Buddy

Becoming a licenced glider pilot is a challenge and we at SOSA want you to succeed whilst having some fun. At SOSA you will be teamed up with a “buddy” or big brother / sister who will keep in touch with you and act as your mentor until you “earn your wings” and achieve your licence. The SOSA buddy program seeks to make the learning process as enjoyable as possible and therefore efficient and cost effective for you.

Your buddy will serve to ensure that all your questions are answered. This is the person to whom you should direct any question or concerns about SOSA or flying. Your buddy will call you or meet you at the club from time to time so we can be sure that;

1. You are having fun

2. You are getting sufficient flying
3. To get some ideas from you about what SOSA is doing well....and
4. What SOSA could be doing better

4.20 Communications and SOSA chat

Formal announcements as well as accounts will be e-mailed to you directly. The Web page at sosaglidingclub.com has lots of information and important documents. You will need to <**Register**> in order to get access to the members web site and the documents, club by-laws, minutes of meetings etc.

Informal SOSA discussion is at Yahoo and as a new member you are strongly advised to join and participate in the group since you will find notices about instructor availability, weather, and general advice and discussion about activities at the club. We also like to announce social activities and we will encourage you to participate. You can request to join at the following address:

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

5. - What You Need To Start Learning How to Fly:

Once you have joined the club, there are a few things, as outlined below, that you will need. These will include items you need to bring with you each day you fly as well as other peripheral items such as a log book and other reading material that you will use at home.

5.1 - Stuff To Bring To the Field

When you come to SOSA, there are a few basic things that you will need. First, you will need to bring water and perhaps your lunch. You can use the fridge in the clubhouse if you need to keep things cool. Many people bring a little cooler. Next a hat is essential. Your buddy will show you the kind of hat that is best for soaring and these can be purchased at the clubhouse. Baseball caps are not ideal, as they restrict peripheral vision and often have little buttons on the top that can damage the canopy. Next you should wear loose clothing and bring sunscreen. The weather can be hot and sunburn is very possible. A good pair of sunglasses is also an essential item. Once you have been given a student permit you are required to have this with you while you are flying.

What to bring	
*	Hat - brimless
*	Sunglasses
*	Sunscreen
*	Loose clothing
*	Lunch
*	Liquid

5.2 - Your Pilot Training Record (“PTR”)

You will receive your PTR when you join the club. It is a little blue book issued by SOSA to track your instruction. This book is used to record information from each flight including its duration, the plane 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. This PTR should remain at SOSA at all times. Do not take it home with you and don’t lose it!

The flight bus has a specifically designed shelf, organized alphabetically, on which the PTR should be stored. In addition to recording your flight information, your PTR is used to indicate other tests you have successfully passed and will ultimately be used as a key piece of information to get your final licence. More about this later.

5.3 - Your Log Book

A log book is available at SOSA and this is your record of flights completed. This differs from your PTR in that the log book is yours to maintain and not a record for the instructor to mark. Your log book is an important record that fulfills a requirement of the Canadian Aviation Regulations (“CARs”). You must maintain your log book throughout your flying career.

5.4 - Reading Material

You should read and familiarize yourself with the Operating Procedures of SOSA that can be downloaded at <http://www.sosaglidingclub.com/>. (Don’t forget to register as a member first of all.) This is a must for you as a new member, and the procedures are constantly being updated, so revisit the document from time to time.

There are many good books on soaring aimed at the novice. However, one book The Soaring Association of Canada (“SAC”) sanctions and SOSA uses for instruction is “Soar and Learn to Fly Gliders”, written by Ian Oldaker, one of the SOSA club members. It is going into its 8th edition and can be found at glider clubs throughout Canada. It is an invaluable introductory text for learning the basics of soaring. The book is part of a kit that you buy at the time you join that includes log book and pilot training record etc. More about these items later.

Start reading “Soar and Learn to Fly Gliders” early and re-read it throughout the course of your instruction. When you first read it, portions of it may not seem relevant or in some cases unclear. However, as you gather more practical experience, it all begins to make more sense and we urge you to refer to it often. It is considered fundamental reading for your first season of flying. In addition, there are several web sites devoted to the theory of flying and gliding. The SOSA web site (<http://www.sosaglidingclub.com/>) has a number of good links to other soaring information.

A fun and informative web site for those new to gliding is <http://gliding.me.uk/>. The site takes the reader through the uncertainties of those first flights and the various challenges of later flights with tips and hints that may explain in another way what your instructor is trying to put across. The more reading you can fit in, the better prepared you'll be for your instructional flights

There is a wonderful and motivating movie "WindBorn" that every aspiring glider pilot will enjoy. WindBorn was produced and filmed in New Zealand amid spectacular countryside and shows the novice Lucy Wills from her first flight to her first solo. The movie is beautifully photographed and depicts all of the doubts and emotional uncertainties that every pilot faces during this period, and the elation at achieving a new set of skills. It is very entertaining and informative. Lucy later in the movie takes a spectacular trip across the Southern Alps with her father at the controls. You can rent the movie (and others) free from the SAC Video Library; just call Ted Froelich 613-824-6503

6 - Best Times to Fly for Students

When you are training, there are a number of periods when training takes priority. Here are the ideal training periods:

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

At these times instructors are available although there is no formal instruction on Fridays. You should talk to your buddy about your preferences. Early mornings and later in the evenings are times when the air is smooth and conditions are more likely to be good for instruction. Plan to come to SOSA during these periods. You will find that the instructors will be busy flying their own or the club gliders after 13:00 hours on a good soaring day. Thus arrive at SOSA as early as you can to reserve your flights. Most new members try to get to the club around 08:15 to 08:30 on weekend mornings. To encourage taking instruction during the early morning, tow charges are discounted until 10:00 hrs by 1,000 ft, so that a 2,000 ft tow is charged at 1,000 ft.

7 - Your First Days at SOSA

When you come to SOSA bring the basics (sunblock, hat, sunglasses and appropriate clothing plus some lunch). Make sure that you are not tired and that you feel rested to

start your day. Come early in the morning and participate in removing the planes from the hangar (“unstacking”) and learn how to do the Daily Inspection (DI).

7.1 - Introduce Yourself and Lend a Hand

Wear your name badge and introduce yourself as a new member. It will 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 soaring alone. We all need help moving aircraft, rigging and de-rigging aircraft, launching aircraft 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 is expected to ‘muck-in’ from the President on down. The more you help other members, the more they will 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 are welcome to pitch a tent at SOSA (no charge), and to use the club facilities, washrooms, showers, and a kitchen. Ask about bringing your trailer. You’ll be in great company.

7.2 - Moving Gliders

Probably the first thing you will be asked to do is to help in moving gliders, and as you can imagine, gliders have delicate “bits” and thus great care must be taken. You will 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.

In general 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 tailplane (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 are given clarification. Pushing on a glider in some spots can damage it. For example the Perspex canopy is an important “no go” area to avoid. 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.

Unfortunately, on rare occasions, a pilot in charge may get overly critical of someone helping to move his or her glider. These are a sure sign that a pilot has failed to clearly

and properly instruct those assisting him or her. If this happens to you, don't take it personally. Just promise yourself that you will do a better job of instructing than this pilot when it comes your turn.

7.3 - 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 control tower and the bus moves 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 for 2010 is Lorna Novosel. Lorna 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 her out. The CFI will be most interested to meet you and talk to you about your progress. She may even want to take you for a flight and you certainly shouldn't turn her down. It will be a great experience.

We recommend that you select three to four 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 have the right to fly with the Instructors who best match your learning needs. You are under no obligation to fly with an Instructor with whom you feel uncomfortable.

7.4 - Getting in line on the Flight Sheet and finding an instructor

When you come to the field ask the Assistant Field Manager 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 this to the instructor. The instructor will want to give you a briefing before the flight as well as after the flight.

When you fly, you will get two 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 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.

7.5 - More Paper Work: The “Pink Tickets”

Gliding requires a fairly consistent paper trail of activity for the club and its members. This is a requirement imposed by Transport Canada (“TC”), the federal agency responsible for air-safety.

Year	Month	Day	Glider Registration	Pilot's Name	Pilot's Number
05	06	23	ZCA	Joe Student	Your #
Circle One:		Tow Height	Instructor's Name	Instructor's Number	
<input checked="" type="radio"/> Regular		3000'	Instructor's Name	999	
2. Intro		Landing Time	Notes		
3. Private		Take-Off Time			
4. Badge Leg		Take-Off Time			
5. Badge Relight		Elapsed Time	FM's Name for Overtime Approval	Flight Number	
6. Power		Elapsed Time	FM's Name for Overtime Approval	Flight Number	
7. Other		Elapsed Time	FM's Name for Overtime Approval	Flight Number	

Periodically, SOSA is inspected and audited by Transport Canada 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 pink ticket to indicate your intention to fly. This ticket is also used to keep track of costs and overall flight activity. You get 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. By this stage, you will have received a membership number. This too, will be added to the ticket to help identify your flight. Do not fly without having filled out a ticket as it throws off the entire operation and you’ll likely have to buy everyone a beer after flying.

It is best to fill out two of these pink tickets at a time and leave them with the Assistant Field Manager (the guy or gal 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.

Prior to each set of instructional flights, you will be asked to sign another book (an instruction log book) along with your instructor to further record your training experience. Your instructor will show you these details.

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 or she will grade each activity you undertook, comment on your progress and make concrete suggestions for improvement.

7.6- 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 Preparatory Ground Instruction and Pre-flight Briefing 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 if asked by the instructor 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 completed and the instructor will give some useful written comments.

7.7 – Ground School

One of the requirements for writing your gliding licence exam is 15 hours of ground school. Ground Schools are conducted in major centres and your instructor will have information about this. The ground school covers 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 licence exam in particular. Participating in ground school is a requirement for you to achieve a licence.

7.8 - Asking Questions and Seeking Help

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.

7.9 – Accounts

Well..... yes these need to be paid.

At the end of the day you will know how many flights you have taken and SOSA needs you to settle up before you leave the field. The best way is by cheque. At the entrance to the SOSA clubhouse there is a small desk / shelf with a slot by the telephone. You can 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. Quick, easy and painless. Otherwise if you are a TD Bank account holder we can arrange for you to transfer funds electronically. VISA is also accepted but there is a \$10 surcharge to cover the additional credit card costs.

At the end of the month, a SOSA volunteer accounts manager will send you an electronic statement showing your flights and charges as well as your balance. Note that 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. Please settle all outstanding accounts asap. Thanks.

7.10 Duty Crew at the flight line

In order to run the flight line we employ three duty volunteers and these are outlined in the SOSA Procedures document.

1. An assistant field Manager – usually a new member whose job among others it is to record the flying times. As a new member you will be assigned a half day at the weekend – typically not more than two or three times during the year. A member will show you the ropes.
2. A Field Manager whose job it is to manage the flight line.
3. Duty Instructor who will be looking among other things at areas of safety.

8 - The Club Gliders: Jargon and Other Aviation Speak

Pilots can sometimes sound as though they speak another language. Soon you will hear gliders being referred to by the registration numbers (Papa Kilo Tango) or by their manufacture type, such as SZD 51-1. Some gliders have imaginative nick names such as the 'Plastic Pig' or the "Flying Coke Can". So how do you keep all this aviation speak straight? Naturally, you will want to get into the loop early on and avoid any misunderstanding. This should prevent the embarrassing situation of being asked to retrieve the "Puchacz" and not needing to timidly ask, "Ahhh....you mean that pretty white jobby over there with the owl thingy on the side?".

So in an attempt to give you some information, we have listed the main club training gliders and their vital statistics in Appendix A. While these data are not intended to be complete, they should help you identify the various ships at SOSA and some of their features. Please look at the full technical detail sheet in the bus for each glider before flying a new ship.

9 - The Field at SOSA

We are extremely lucky at SOSA to have a variety of runways and 120 acres of land to use depending on conditions. The figure shows the layout of the field along with the clubhouse and hangars. Basically there are three runways marked on the field with yellow pylons. The runways can be used in either direction, thus six landing patterns can be possible depending on wind conditions.

We refer to the runway on the basis of its compass direction. For example, the main (longest) runway is along a North-South direction. One 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. However, instead of saying "Runway 360", they will refer to it as

"Runway 3 - 6". Likewise the other options are "03" pronounced "zeero tree", "10", "18", "21" and "28" corresponding to 030, 100, 180, 210 and 280 degrees respectively. Look at the map of the runway 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.

9.1 Be Aware of Runway Activity

When other sailplanes are in the air, we always have an "active" runway in use. However it is dangerous to assume that the active runway is the only runway in use, since gliders may use any runway in an emergency (or during an instruction flight). Since gliders are silent you will not notice them approaching unless you are looking for them. It is best to assume that a glider or tow plane may land on any runway, from any direction, at any time. A good lookout is always required before crossing.

You should also watch out for visitors, animals, children etc. who may wander onto any one of our runways. If this happens, politely but firmly ask these guests to leave the runway immediately.

When you do decide to cross the runway, go across it at right angles and do so promptly. Do not go across it diagonally, as this will take more time and you may become a hazard for an approaching aircraft. Spend as little time on the runways as possible.

9.2 -Be Aware of the Tow Rope

The towrope is about 150' 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 forty-five degree angle. As the tow plane approaches the runway, be aware of this rope. You definitely don't want to be hit - it could end a nice day and even your life. Watch out!

9.3 -Be Aware of the Tow Plane and Propeller

When an airplane is shut down, never touch the propeller. Aircraft engines are not like car engines and they can start with only a slight motion 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 knows you know, that he /she is about to move.

9.4 -The Art of Wing Running

Running a wing is easy. Have your instructor or another member show you how. A common mistake is running too far. Four or five steps will usually give the pilot aileron control. Another mistake is holding up or down pressure on the wing in a crosswind. In this situation, when you release the wing, it will either pop up or down. 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.

Before giving the "take up slack" signal, check for other aircraft traffic, runway obstructions etc. that may be a factor and hold the launch until any hazard has passed. Do not launch if you notice that a pilot has neglected to retract the dive brakes or remove the tail dolly. Occasionally, a pilot may purposely keep the dive brakes 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 dive brakes to improve take off control on a crosswind or when carrying a heavy load of water ballast.

9.5 - Retrieving a Glider

One of the first tasks you perform will be retrieving a glider. You will do this by using one of the golf carts (the Gator or Club Car). Get someone to show the safe operation of these little vehicles before conducting a retrieve. Before you go, make sure that you have the taildolly for the plane you intend to retrieve. Each plane has different

requirements and not all gliders require dollies. For example, the silver L-13 Blanik (CXC) requires a dolly while the white L-23 Blanik (HGL) does not. Other gliders have different requirements. Ask before you go.

When you drive the retrieve vehicle, naturally you will not drive on the runway, but beside it (behind the yellow pylons). When you reach the point directly across from the glider, check for air traffic, and make sure that the next glider & tow plane are not going to launch. Then cross the field at right angles and get off the runway on the opposite side. Do not sit on the runway at any time. Then, the pilot will show you how the retrieve vehicle towrope is connected to the glider.

Usually the pilot will walk with the glider, holding the end of 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 beside the runway... once again, behind the yellow pylons. As you approach the bus, be aware that you may be approaching a lot of other gliders and traffic. When driving watch your wing-walker to make sure that (s)he is walking at a comfortable speed. (S)he may signal to speed up or slow down. Watch where to tow your glider. Naturally, our goal is to avoid costly collisions with obstacles or gliders. Follow the instructions of your wing-walker and ask the Field Manager where to put the glider for the next flight. Stop abruptly if asked to do so and place the wing on the ground.

If you are walking the wing, keep the plane level and walk on the side of the glider where you are likely to meet the most obstacles. This lets you see the wing position as you guide the glider along its path. This is usually on the wing away from the runway, but be aware of both wings at all times.

10 – Come to Fly Often!!!

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

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 most likely be flown. If the weather deteriorates, you will still have an opportunity to speak to fellow members and Instructors about gliding. 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.

11- Progression Toward Your Solo Flight

As you gather more experience, your instructors will take you through a planned progression of skills. Develop them as needed at your own pace with the ultimate goal of gaining confidence and experience. The progression of skills is listed in Appendix B of this manual and they are also outlined on the second page of your PTR.

At first glance, many of the tasks will be unfamiliar and seem impossible. It is generally agreed that the first 10 flights will seem somewhat chaotic and daunting. However, 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. However, **prior to this point**, you should be completing other, non-flying tasks 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. These steps are outlined in the next section.

11.1 - 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. Naturally, you will be focused on this and want more. However, there are a few others tasks that you should get out of the way early.

FIRST: Your Identification - Bring your passport or birth certificate and two copies of the front of your passport to the club as proof of Canadian citizenship or landed immigrant status. Do this early in your instruction. Show it to the CFI who will keep the copies as part of your file for your Student Permit. You will need to get the CFI's signature in your PTR to show that you have completed this task (see accompanying figure).

SECOND: Your Medical - The CFI will give you a form (included as part of your new members kit) that you will need to fill out with regard to your medical fitness to fly. In many cases, you simply affirm that you are fit to fly by answering questions on this form. However, in some cases, a certification from a Canadian Aviation Medical Examiner

(CAME) may be required. In fact, not all physicians are certified to indicate this and if you fall into this category, your Buddy will give you further guidance. Do this early, as this medical certification has in some cases, delayed getting students through SOLO by as much as a year! Start early on this.

THIRD: Radio Operators Certificate - You will need to get certification to use an aviation radio. This involves reading some of the laws regarding the use of radios and standards for their operation. A copy of the Radio Operators Manual is available at the clubhouse. You can also download it as a PDF, entitled "RIC-21 - Study Guide for the Radiotelephone Operator's Restricted Certificate (Aeronautical)" from Industry Canada. This can be downloaded from the web using the following URL;

<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 licence in a safe place and have it with you when flying.

FOURTH: Pre-Solo Exam – You will need to take a pre-solo written examination prior being allowed to solo. Preparing for this examination need not be onerous, but can be confusing. The information you will need to cover is partially presented in "Soaring and Learn to Fly Gliders". However not everything that is required can be found here.

You need to 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. We recommend that you consult the SOSA web site. Another very useful source of information is published by PSTAR that is for general aviation; however much is applicable to gliders. Please consult web site (<http://www.offtraining.com/pstar.htm>) for this information. Work through these and you will be well prepared for the pre-solo test.

When you feel you are ready to write the exam, speak to your mentor and they will arrange this for you. Once you have written and passed the exam, get the sign-off in your PTR from an "authorized person". The signature page on your PTR.

FIFTH: Student Permit – Once you have passed the medical, and pre-solo exams and signed off in your PTR, then the CFI 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 to go solo, you can do so without interruption. We urge you to do this prior to your 30th flight. So to repeat you will need

- a) Proof of citizenship (and age)
- b) Medical
- c) Proof of knowledge (pre-solo test)

11.2 - Recommendation for SOLO

Prior to going solo, you must demonstrate proficiency at flying and have two recommendations. 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.

11.3 - Your SOLO Flight!!

Your instructor or mentor will choose a good day, with benign conditions. A calm summer evening is perfect. You 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.

12 - 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 licence. In the next section, we summarize the steps along this next stage in your journey.

12.1 - 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.

12.2 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.

12.3 Challenge yourself by flying other aircraft.

You should also challenge yourself to fly the single seat gliders – the Junior after a minimum of 5 flights in the two seat trainer. Approaching the instructor and simply asking whether they consider you to be capable. If you win their approval they will give you a careful briefing and - wow – you are away in a sleek craft, nervous at first but beaming with pride.

12.4 Get That Test Outa The Way!

Your maturity as a pilot will not be complete without a comprehensive knowledge of flying, and your flying experience will create a craving for a greater understanding of the reasons of “why and how?” The glider pilot licence demands a TC test and your preparation for this is in the attendance and completion of a ground school as well as further reading of some texts. An excellent text for all pilots is “From the Ground Up” published by Aviation Publishers Co. Limited and available at commercial aviation schools such as at Waterloo, Buttonville or Aviation World. This publication is a comprehensive and well written text covering the following

- Aircraft Operations
- Air Law
- Meteorology
- General Airmanship
- Examination guide and sample test questions

You will find this learning process to be fulfilling and it will give you a greater understanding of your sport but in order to challenge your licence you will need to get the dreaded test out of the way. Read the text, complete the ground school and do the example tests. You are then ready. The TC test centers locally are at Hamilton Airport and at 4900 Yonge Street Toronto 2nd floor (416) 952-6033. Call ahead of time to check the arrangements and “just do it”. The 50 exam questions are multiple-choice, computer generated and you answer on line while being invigilated by a TC official. You have 2 hours to complete and your result is given immediately. You are expected to achieve a 60% grade for a pass mark. No problem and quite a relief to get done.

Be aware that there are minimum criteria to challenge the test

1. Greater than 16 years old
2. Flying time total of 6 hours of which 1 hour is dual, 2 hours solo and 20 take offs and landings

12.5 Licence Flight Test

When you feel confident about your flying you should ask an instructor about challenging the licence. If recommended, a SOSA flight test examiner will take you for a series of two flights during which a full range of flying skills are challenged and marked. An outline of the test is available in the bus and on the 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 instructor 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 get the final approval for your licence.

Congratulations you are now a licenced pilot – a rare breed

13 Cross Country challenges

Going solo and completing your licence is just the beginning of your soaring training. It is an ongoing process of continuous growth and improvement. A number of “badges” have been created to test and hone your skills. A few are outlined below.

13.1 Bronze Badge

This is an intermediate task that will familiarize you with the skills involved in cross-country soaring. An instructor runs a bronze clinic twice each season aimed at post-solo pilots who are ready to move onto to more challenging skills. The purpose is to bridge the gap between the first level “C” badge (1 hour flight) and the more difficult Silver badge.

The required exercises are listed below.

1. Three 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.
2. Off-field landing exercises (Dual) – Site selection and circuit planning and completion.
3. 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.
4. Rigging/derigging/trailering the glider.

13.2 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 that don't all need to be done at the same time:

1. Complete a 5 hour endurance flight.
2. Gain 1000 metres of altitude, un-assisted, during a single flight.
3. 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 the task, but the experience of doing it on your own for the first time will not be forgotten. It is very important to talk to your Ambassador, the instructors, an Official Observer, and other club members and ask many questions. Everyone will help you in your preparation and you will need a crew for your 50 km flight.

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

14 - Safety

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

This is a good question! First and foremost, it must be said how hard it is to make absolute statements about safety, or to compare and rank the safety of different activities. The SOSA waiver you are asked to sign is quite explicit.

But it is also useful to know some facts and to appreciate the risks of any new activity with your eyes wide open. Knowledge of the risks tends to reduce their likelihood of happening. So in an attempt to answer the question, here are some facts and some opinions.

Gliding safety often depends upon the continuous and consistent application of many procedures and practices that are based upon decades of operational experience. The dangers become greater when people start bending or breaking these rules, whether they realise 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 has knowingly exceeded his/her abilities by venturing beyond their competence or experience. And in line with most accidents, 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 stick to your limits. If you are not sure about anything, ask!

If you have not experienced something before, or are out of practice, then ask for a dual flight 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.