



MEMBERSHIP INFORMATION
and
OPERATIONS MANUAL

Membership Information

The Pittsburgh Soaring Club, flying out of Bandel Field near Eighty-Four, PA, was founded in 1965 as a non-profit corporation. Its purpose is to provide members with the equipment and facilities to pursue the sport of soaring at a reasonable cost.

The club welcomes all prospective members -- pilot and non-pilot -- who have the desire and motivation to learn the art of flying sailplanes and contribute their particular skills and talents to the collective effort. Indeed, the diversity of its members in terms of age and profession is one of the factors which contribute to the dynamism of the Pittsburgh Soaring Club. New membership positions are based on such factors as available aircraft, actual flying activity, instructor availability, resignations, etc. Membership levels have traditionally been around 55.

Soaring is an exhilarating sport which offers limitless possibilities and challenges for all types of flying ranging from local, cross-country, competition, and badge flying. The Pittsburgh Soaring Club encourages all aspects of soaring but practical and financial considerations mean that club equipment is used primarily for local flying. The club is by no means static, however, and reassessments are made from season to season in accordance with the wishes of its members.

Operation

The Pittsburgh Soaring Club is in operation every flyable weekend generally between April and October.

The club operates solely on the volunteer efforts of its members who contribute their time and skill for towing, instruction, ground-handling, maintenance, and any other kind of work associated with soaring activity.

Most flying days begin at approximately 10:00 a.m. and end toward sundown. Flights are assigned on a first come first served basis via a sign-up sheet, it then being the responsibility of the individual pilot to monitor his turn. Weekend flights are restricted to a one-hour limit in order to give everyone an opportunity to fly.

Safety is an important and ongoing consideration in soaring as in any other type of flying. All new members are expected to quickly learn and follow established procedure.

Equipment

Equipment presently owned by the club include a Piper PA-18 Supercub Towplane, two Schweizer 2-33A 2-place trainers, and a Schweizer 1-26E single-space medium performance sailplane. Additionally, there is miscellaneous equipment such as trailers, radios, etc.

The club rents hangar space which is large enough to house all currently owned aircraft. The hangar rental includes the use of Bandel Field which is a grass and gravel 2,200 foot airstrip aligned in a N - S direction.

Dues

As of June 1875, dues and associated costs are:

Initial Fee	\$ 300.00
Monthly Dues	\$ 15.00
Tow Fee	\$ 8.00 hook-up plus 20¢ per 100'
Instruction	Arranged at the discretion of instructor(s)

Members receive a bi-monthly statement from the club treasurer, itemizing dues owed, number and costs of tows, and other charges.

Meetings

Club membership includes a full voting right which can be exercised at the Annual Meeting and at Special Meetings should these be necessary. At the Annual Meeting, generally held in March or April, members discuss old and new business, decide on legislation, and elect new officers.

In addition to formal meetings, interested members meet on an informal basis throughout the year to keep abreast of problems and developments which require more immediate attention.

Social Activity

The club has traditionally held an Annual Picnic toward the end of the summer and more recently dinners and informal get-togethers. Many members also enjoy a picnic with family and friends at the end of a great flying day.

All this adds considerably to the whole of the soaring experience.

Miscellaneous

New or prospective members are also encouraged to join the Soaring Society of America, which includes a subscription to "Soaring" magazine and helps keep members current on soaring activity in the United States and around the world.

For more information about the club and about soaring, please feel free to contact current officers or any member listed in the club directory.

RULES AND PROCEDURES

Procedures for:

I. Removing Towplane from Hangar

- * Position one person at tail.
- * Use handle. Do not lift up on horizontal stabilizer.
- * Make sure that magnetos are OFF.
- * Steer tail clear of obstacles.
- * Use propeller and/or wing struts to pull up from hangar. Be sure to pull on both blades simultaneously, near their bases.
- * Park the towplane clear of the runway facing into the wind.
- * Chock both wheels or set brake

Towplane pre-flight must be made by a tow pilot.

II. Removing Sailplanes from Hangar

- * Position one person at wing tip and don't push stright forward (the one closest to hangar door), another at the tail.
- * Lift tail using the most inboard portion of the horizontal stabilizer.
- * Wing man starts sailplaine moving.
- * Slowly walk the glider out of the hangar until the dolly is on the hangar apron.
- * Lift tail high enough (one or two men) to allow removal of dolly.

CAUTION: 1. Watch hangar roof trusses.

2. Do not punch finger through fuselage fabric.

- * Check for and install ballast.
- * Install radios as prescribed.
- * Clean canopy.

III. Tow to Flight Line

- * Push glider to flight line with the electric buggy.
- * Position at least one man at wing tip.
- * If extra person is available, position at canopy for guidance and backing or release should this be necessary.
- * Travel no faster than a brisk walk.
- * Position gliders off the runway ready for pre-flight inspection.
- * Return buggy to hangar and put on charge.

IV. Prepare 2 tow ropes for use and inspect both for damage. Place extra tow rope parallel to but off active runway on the side with the hill.

V. Place tables, chairs, clipboard, and ground station radio at launch site as desired.

Erect tent as desired.

VI. Gliders should be positioned clear of and perpendicular to runway (wings parallel) as follows: windward wing down and weighted

canopy closed

spoilers open

controls secured

Pre Flight (each flight) Long Form

1. Pilot shows license and establishes currency with flight officer.
2. Calculate weight and balance using placard. Put in ballast if required.
3. If parachute is to be used:
 - a. Check inspection card (must have been packed within 60 days.)
 - b. Check pins for condition and the lead wire safety is in place.
 - c. Straps should be checked and adjusted to snug fit.
4. Adjust seat position (1-26) and cushions for comfortable flight.
5. Adjust rudder pedal length as required for proper travel.
6. Double check personal gear - must have watch and change in case of off-field landing - highly recommend sunglasses, hat, light windbreaker, and motion sickness bag for passenger.
7. Enter sailplane and run down cockpit checklist:

C Controls	Freedom of movement on flight controls and proper movements to control inputs
B Ballast	If required, verify it is on board and secure
S Straps	Set belt and shoulder harness secure, snug, and comfortable
I Instruments	Altimeter adjusted, vario position noted, radio volume up full, and squelch set just below static hiss
T Trim	Set forward to take off position
T Tow rope hook	If first flight for this ship today, have release checked up - tell wing runner to take out slack
C Canopy	Closed and locked
B Brakes	Dive brakes closed and locked
8. With slack out, double check wind direction and strength, signal thumbs up with left hand when ready to go.
9. When tow plane fans rudder to go, acknowledge by fanning your rudder to start tow.

Take-off/tow reminders

1. Get skid off ground ASAP and keep it up.
2. Establish tail level position - let acceleration to 40 mph make sailplane break ground contact.
3. Keep glider 3 - 10 ft. off ground in level attitude until tow plane breaks ground - then climb in standard high tow position.
4. Keep center of tow plane on horizon or on hazy day, keep strobe light on front edge of towplane greenhouse.
5. Check in with tow pilot about 1,000 ft. up to confirm your desired direction of travel and release altitude.
6. Remember your standard SSA towing signals but don't be afraid to use the radio as well for additional confirmation.

EXCEPTION: When towplane waves you off by rocking his wings, release now.

Rocking means you will see 2 or 3 dips of each wing, not one, as in turbulence.

7. Announce your intention to release a few seconds prior to pulling release knob and perform a mild climbing turn to the right.
8. Tow pilot will announce you clear prior to performing descending turn to the left and establishing descent profile.
9. Flying the tow out of position may result in a towplane release and subsequent inconvenience - pay attention while on tow.

Landing Reminders

1. Below 2,000 ft. you should have a general idea of where to land at all times.
2. Below 1,500 ft. you should be moving to a specific field chosen and within range of pattern entry.
3. Below 1,000 ft. you should be in the landing pattern.
4. Thermaling below 1,000 ft. in the general area of the IP is considered risky and a poor practice. Repeated low thermaling may be grounds for flight committee review and action.
5. Radio contact with Bandel Base is expected when the intention to land is made. This may be 1,700 ft. at the truck stop and heading for home or from 1,200 ft. closer to the field, such as over Bob Banchel's farm.
Your radio must be on below 1,500 ft., so you can monitor other traffic approaching and departing Bandel.
6. Once the decision to land has been made, you should announce your entry onto downwind and ignore all further lift. Your turn from downwind to base should also be announced. The turn from base to final is optional depending on your experience. The safe landing is your primary responsibility and should not be jeopardized with a mandatory radio call on final if you can't handle it. However, it is requested of experienced pilots, since it further enhances field safety.
7. Complete patterns with entry about 1,000 ft. are requested and encouraged since they are the safest for all concerned; however, if a safe landing dictates an unusual pattern, so be it. There is always time to discuss options and preferences after safety has been assured.

Landing Checklist (long form)

1. Radio turned on 1,500 ft. and below.
2. Entry to pattern at 1,000 ft. for students mandatory; all others, 1,000 ft. is requested, 800 ft. is mandatory.
3. Announce beginning downwind and base legs to Bandel Base.
4. Check dive brakes on down wind for proper operation.
5. Reset trim forward to landing position.
6. Check to your right for traffic on long final prior to turning from base to final leg of landing pattern.
7. Use some spoiler/dive brakes on approach as this increases your options in adjusting flight path.
8. Round out and slow plane down for full stall landing rather than making wheel landing and lots of brake to stop.
8. Move glider off the runway quickly - help with a car or the field cart will be along to pull the ship to the launching area if more than 600 ft. from the operations area.
10. Shut down radio and electric vario to conserve battery prior to ground handling.
11. Log your flight at the operations table.

End of Day Checklist

1. Members are responsible for retrieval and storage of all equipment, including:
 - aircraft
 - radios
 - tow rope
 - table
 - chairs
 - tent
 - clipboard
 - miscellaneous debris such as cups, cans, papers, etc.
2. Gliders and tow planes should be positioned in the hangar according to accepted procedure.
 - Three persons is the recommended minimum crew for handling of aircraft.
 - Be sure that dolly wheels are on the steel plates.
 - Allow at least 4" clearance between aircraft and between the tow plane propeller nose cone and hangar doors.
 - Chock tow plane wheels.
 - Check log books for entries.
 - Turn off radios and variors.
 - Cover canopies.
3. Wind tow rope and check for damage. (Tow slips in box)
4. Charge radios. (DO NOT leave cart on charge overnight.)
5. Store chairs, table, tent, etc. neatly and in their proper place.
6. check field and flight line for items which may have been forgotten.
7. Tag any defective piece of equipment and make report to maintenance chairman.
8. Lights out.
9. Close hangar.

STANDARD AMERICAN SOARING SIGNALS



Launching safety requires clear signals, predictable intentions, and plans for emergency action.

<p>1. CHECK CONTROLS</p>	<p>2. OPEN / CLOSE</p> <p>TOW RELEASE</p>	<p>3. PILOT READY</p>	<p>4. TAKE UP SLACK</p>
<p>5. TOWPLANE READY</p> <p>waggle rudder</p>	<p>6. HOLD</p>	<p>7. BEGIN TAKE-OFF</p>	<p>STOP ENGINE / RELEASE TOWLINE</p>
<p>STOP OPERATION</p> <p>EMERGENCY!</p>	<p>pull gently</p> <p>TURN RIGHT</p>	<p>TURN LEFT</p> <p>pull gently</p>	<p>RELEASE NOW!</p> <p>rock wings</p>
<p>SAILPLANE CANNOT RELEASE</p> <p>move out, then rock wings</p>	<p>TOWPLANE CANNOT RELEASE</p> <p>fishtail</p>	<p>INCREASE SPEED</p> <p>rock wings</p>	<p>DECREASE SPEED</p> <p>fishtail</p>

TO ALL TOW PILOTS:

With the intention of prolonging the life and reliability of the tow plane and the good performance of the engine, the following is a suggested operating procedure.

Take off with glider in tow:

Trim set to Nose up-midway between neutral and full up.

Mags on Both.

Carb heat Off.

Flaps UP.

Fuel selected to proper tank.

Mixture FULL RICH.

Strobe ON - if conditions warrant.

When signal to go is given - advance throttle to Full (2 - 3 seconds minimum). DO NOT attempt to take off with less than full power. Break ground when tow plane feels ready to fly. Prolonged ground run is not necessary; you will accelerate faster when airborne. All normal climbing turns should be no more than single needle width. Try to maintain constant airspeed, 60 to 70 MPH depending on glider weight. Monitor cylinder head temperature, 500 F maximum, increase airspeed by lowering nose if head temperature goes to 500 F or above.

Procedure for returning to the airport after glider release:

At time of glider release, nose high altitude, airspeed 65-70 MPH, while making left turn, slowly reduce engine RPM to 1700.

Pull first notch of flaps- hold forward stick pressure- trim nose down, then pull rest of flaps - retrim to maintain about 80 MPH, max flap speed 85 MPH.

Descent in this configuration to pattern altitude, wing overs, and steep banks should be avoided.

It is your choice at this time to land with or without flaps. However, using some power instead of engine idle down final is highly recommended.

If glider release is some distance from airport or your position is such that a NO Flap let down can be made, then do this. Reduce RPM to 1700, let down at 80 - 90 MPH, again wing overs and very steep banks should be avoided. Carry some power on engine down final, avoid idle power as much as possible.

The idea of keeping power on the engine and low airspeed is to cool the cylinders slowly and prevent cracking cylinder heads and what is known as piston bounce or flutter.

MEMORABILIA

HISTORY

The Pittsburgh Soaring Club was presented its charter of incorporation Thursday afternoon, February 25, 1965. The presentation was made by Judge John G. Brosky, a well-known figure in aviation circles. The club has named him an honorary member in recognition of the assistance he has rendered in its formation.

Presently, the club is accepting charter members, with an immediate goal of fifteen. This number will be sufficient to finance the acquisition of its first sailplane, a year-old, modern two-seat training type. Members will be provided free instruction and will make solo soaring flights in this sailplane when qualified.

Operations will be conducted at the Connellsville Airport, a well-equipped field about forty miles southeast of Pittsburgh. Mr. Lance Call, the airport operator, is enthusiastically supporting the new organization by providing airplane tows and hangar space. As the club grows in size, it is anticipated that additional sailplanes of higher performance will be acquired, enabling members to enjoy advanced soaring including cross-country, altitude, and duration flights. Sailplanes have traveled over 400 miles, climbed to 15,000 feet, and remained aloft over 7 hours in this section of the country, illustrating the kinds of achievements the club hopes to match.

The sport of soaring is little understood by the general public, which imagines gliders to be primitive, flimsy contrivances and the pilots who fly them to be daredevils. This is far from an accurate impression. Modern gliders, more properly called sailplanes, are the most efficient of all flying devices, including birds. Of necessity, being without an engine, they must fly downhill. However, the gradient which gives them flying speed is so slight that they seem to be flying level. The lowest performance glider built today glides about 18 feet for each foot of altitude lost. This is about twice the distance a typical powered plane will travel with its engine shut off. The highest performance gliders built today exceed a glide distance of 40 feet per foot of altitude lost.

Sailplanes are outstandingly safe. While designed for lightness, they are nevertheless quite strong structurally, and are able to perform aerobatics and withstand extreme turbulence easily. The very low flying speed (about 40 to 50 miles per hour) is an additional safety feature of gliders which is especially helpful in landing, as it enables sailplanes to land easily in a small space which a powered plane could not attempt. Additional proof of gliders' safety is that the Federal Aviation Agency permits a boy or girl of 14 to solo a glider after a course of instruction.

Gliding owes its start to the resourceful Germans, who, prohibited from building powered airplanes by the Versailles Treaty following World War I, build gliders instead. They found that extended flights were possible using wind upcurrents against the face of a hill. In the late 1920's it was discovered that vertical air movements caused by unequal warming of the ground by the sun were strong enough to enable an efficient glider actually to climb. In essence, the glider coasted downhill as usual, but if the mass of air in which it flew was rising faster, the net result was a gain of altitude. The soaring birds have long done just this, and it is strange that it took man so many centuries to emulate them. In a strong thermal current of this type, a circling glider often achieves a rate of climb of 1,000 feet a minute, and can soar effortlessly to great heights.

The new sport of gliding, spiced with the even newer discovery of soaring, spread rapidly through the world, but was slow to catch on in the United States. This country has never been a leading soaring nation, perhaps, it has been theorized, because we are preoccupied with speed and mechanical devices. In recent years, due to the perseverance of the Schweizer Aircraft Corporation of Elmira, NY, in producing outstanding gliders and tirelessly promoting the sport, a definite upsurge in activity is underway. There are now fewer than 6,000 active glider pilots in the U.S., compared with an estimated 30,000 in Germany, illustrating that the potential is great.

The official organization of soaring enthusiasts in this country is the Soaring Society of America. It publicizes the sport, encourages proper instruction in the art of motorless flight, sanctions contests, and makes awards to pilots for noteworthy flights.

The first annual meeting of the Pittsburgh Soaring Club will be held on Monday, March 1 at 8:00 p.m. at the Green Lantern Restaurant, Route 19 at Mitchells' Corners, just north of Gammon's. Those who are seriously interested in joining are invited to attend, whether they are pilots or non-flyers. The membership fee will be \$250, and monthly dues \$5. The club requests that only those who are prepared to join at this time attend the first meeting. Charter members will have an election of officers, will consider bylaws, and will decide on the purchase of equipment at this meeting.

The following men are the incorporators and are acting as temporary directors of the club:

Stanley Duckworth
Keith Gates, V.M.D
Paul Gibson
Raymond Kowalski
Scott McGovney
Paul Pucker

PITTSBURGH SOARING CLUB NEWSLETTER
May 20, 1965

This is the first in probably a very irregular series of newsletters to members of the PSC. If we can con someone into taking on the title of editor, it may become a monthly fixture. Any volunteers?

We now have 18 members, including Ed Fitzroy and Bill Schildnecht since starting operations. Seven members have soloed the 2-22 -- Stan Duckworth, Bill Hazlett, Earl Murphy, Gunter Mues, Scott McGovney, George Welley, and ye editor and prez. You other four with previous power experience had better hustle or some of the seven eager students will beat you to it.

Two new officers and members of the Board of Directors are Paul Pucker, Maintenance Committee Chairman, and Gunter Mues, Flight Committee Chairman.

To date we have made 109 flights, and the 2-22 is proving what we had expected -- she's a gentle lady, but likes to come back to the ground as quickly as possible. Best flight so far has been by Stan D., who had 50 minutes and 4,100 feet on Thursday, May 13. This record should be easily beatable.

Publicity being obtained in several ways. Pittsburgh Press is doing a short story on our club, which may be in the May 22 or 29 edition. An ad is running this Saturday and Sunday in the classified section. Finally, we are very close to getting Don Riggs of KDKA-TV down to do a special show about us.

Prime need now is a single seat sailplane which will stay up better and keep the solo pilots happy. Ten new members would give us the money to get this needed ship. Another health development would be for a few members to pool money for a partnership in a glider, which might be made available to the other members on a rental basis. Or, the club could borrow money now, buy a glider, and either increase monthly dues or charge for flying time in the new glider. Let the officers know what thoughts you have.

Bill Holbrook of Cumberland brought his Standard Austria sailplane to Connellsville last Saturday for some practice. He had a five-hour flight, causing Lance to comment that towing him would be highly unprofitable. Also wondering if we are any good at all, no doubt. A Schweizer 1-26 from Cumberland was also on the field, and had some good flights.

Uncertain as the future of this newsletter may be, suggestions for a name (and an editor) are in order.

P. B. Gibson