

# ***Greater Boston Soaring Club***



## ***Membership Manual April 2023***

# *GBSC Membership Manual*

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# REVISION HISTORY

<b>Date</b>	<b>Who</b>	<b>Changes</b>
3/10/95	Bell, Blom, Boyd, Burnard, Camp, Gray, Marrion, Smith	First Edition
9/16/96	Burnard, Kustes, Lincoln, Orchard	General Revision
10/20/98	Brown, Kustes, Smith, Stauble, Strong	General Revision
4/2/02	Roelke , Strong, Verhulst	General Revision
04/05/03	Joe Schena	General Revision, MITSA History Added,
03/02/08	George Young, Peter Vickery, Ritts Howard, Roy Bourgeois, Scott Lamont, Eric Foertsch, Mark Koepper	General Revisions, "Ground Procedures Manual" referenced, Various sections changed to conform to the "Ground Procedures Manual, Section 3.2.12.3 Cross Country Pilots - Final Glides. Updated, Section 3.4 - Special Group Events added, Section 5. 4.1 - Logger Duties Updated Appendix A - Rate Sheet updated to 2008, Appendix B - SIGN-UP LIST updated, Appendix C - FLIGHT LOG & Procedures updated , Appendix F - ATV deleted

07/06/12	George Young Eric Foertsch Dwight Schirmer Scott Lamont Ritts Howard Ira Bliden Ray Williams Pierre L'Heureux Dave Simmons	General Revisions - Grammar & format Section 2.0 History - MITSA section updated Section 1.3 Equipment – Glider & Winch added Section 1.4.1 Encampments added Section 1.4.2 Winch operations added Section 1.6 Membership - Guest, Tow Only & Mutual added Section 3.1.1 Scheduled flying - Winter flying Section 3.1.3 Unscheduled Flying - Winter flying Section 3.2.1 Flying - Consecutive student instructional flights Section 3.2.1. Flying - BFR date requirement on sign-up sheet. Section 3.2.12.2 RW 16 IP 1500 MSL Section 3.2.13.1 landing Area - Winter Asphalt runway use Section 3.2.13.2 Landing Technique - Ref for other gliders Section 3.3.2 First flight in GBSC Glider - Requirements added Section 3.3.3 Cross-Country Flights - First retrieve free Section 3.3.5 Towing Non-GBSC club Gliders – Added Section 3.3.6 Encampments – Requirements added Section 3.3.7 Aerobatics – added Section 3.5 Visiting Pilot Requirements - added
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		<p>Section 3.6 No Fly List - added</p> <p>Section 3.7 Intro flights - added</p> <p>Section 4.3.4.2 Tow Plane releases - clarified</p> <p>Section 4.5 Emergency &amp; Incident reporting - added</p> <p>Section 5.1 SFO duties – mentoring added</p> <p>Section 5.6 Post flight Ops – Appendix D referenced</p> <p>Section 5.3.2 SFO Duties - Appendix D referenced</p> <p>Section 5.6.2 Prospective New Members – Application forms online</p> <p>Section 7.3 Assigned tow pilot – Inspect winch rope added</p> <p>Section 8.2 Aircraft Status Board – Web based version added</p> <p>Appendix A Rate Sheet - Updated 2012</p> <p>Appendix C Flight Log - L-23 N922SB added</p> <p>Appendix D SFO check lists- Updated no signature required</p>
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01/12/14	George Young Pierre L'Heureux	<p>References to 118BB removed</p> <p>Correct color &amp; N number of 1-26</p> <p>Section 1.2 Added tow plane parking</p> <p>Section 3.2.1 Added clarifications to signup sheet</p> <p>Section 3.2.1 Added BFR &amp; 90 Day note to sign up</p> <p>Section 3.2.1 Added e-sign up to sign up</p> <p>Section 3.2.2 Flying with water added</p> <p>Section 3.2.2 Added adapter requirement for Birddog</p> <p>Added clarification that sign up is first come first served basis</p> <p>Section 3.2.13.1 Removed reference to parallel runways L &amp; R</p> <p>Section 3.2.13.1 Removed explicit requirement to touch done after the Blue hangers on 34</p> <p>Section 3.3.1 Add spring check out requirement</p> <p>Section 3.3.4 Add 2 hr limit if two members flying two place ship</p> <p>Section 3.3.7 Aerobatic section updated</p> <p>Section 3.7 Added note about the purpose of intro flights</p> <p>Section 3.7 Added Reduced rate member Gift certificates</p> <p>Section 4.3.4; 4.3.4.1 Removed references to tow plane TOST Winch</p> <p>Section 4.3.4 Added tow rope and weak link/adapter descriptions and use</p> <p>Section 4.3.4.2 Update Schweizer tow plane release</p> <p>Section 4.5 Added note about holding tow rope so Tow pilot can see it.</p> <p>Section 6.3 Added other sources of the pre-solo written test</p> <p>Section 8.4 Added Return to service flights</p> <p>Appendix A Clarified Instructor credits.</p> <p>Appendix A Update</p> <p>Appendix B Updated Signup sheet</p>
03/02/14	George Young	<p>Changed FAR to CFR 14</p> <p>Biennial Flight Review changed to flight review</p> <p>Section 4.3.6 Water Ballast note added.</p>

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03/02/16	George Young Dwight Schirmer David Sherrill Brenna Haynes Tom Witkin Bart Lenaerts	<p>Minor formatting changes</p> <p>Remove revision from Footers</p> <p>Add File Name to Footers</p> <p>Changed Certified to Certificated for CFI-G references</p> <p>Section 1.3 Added ASK 21 &amp; Condor Simulator</p> <p>Section 1.4 Flying added Drag race</p> <p>Section 2.0 Updated history to document purchase of ASK 21 &amp; Hanger</p> <p>Section 1.4.2 Modified reference to Winching</p> <p>Section 3.2.2 title was Takeoff Issues</p> <p>Section 3.2.2 added note "See Section 4.3.4 Below for additional details"</p> <p>Section 3.2.3 added note "See Section 4.3.5 below for additional details"</p> <p>Section 3.5 Reference rate sheet remove Fee amounts</p> <p>Section 4.1 Add note this manual overrides "Ground Procedures Manual"</p> <p>Section 4.2 Towpilot note added</p> <p>Section 4.3.1 Add note about student exemption from rule</p> <p>Section 5.2 Added no show payment of volunteer's flight</p> <p>Section 5.6.2 Introductory Membership Form was One Day Membership</p> <p>Added ASK 21 where required</p> <p>Section 9 Safety (new Section)</p> <p>Section 9.1 Added Private Glider Acquisition</p> <p>Appendix A Update Rate Sheet</p> <p>Appendix A Visiting Pilot Tow fees added</p> <p>Appendix A Region 1 Member Pilot tow fees added</p> <p>Appendix F New Glider Policy (new Section)</p>
04/02/16	George Young Lew Klunk Chris Giacomo David Fisichella	<p>Minor formatting changes</p> <p>Section 3.5.2 Rates for region 1 pilots clarified.</p> <p>Appendix A 2016 rate sheet</p> <p>Appendix F New Glider Policy ASK 21 flight imitations</p>

03/10/17	George Young Pierre L'Heureux Rick Roelke Tom Witkin Bart Lenaerts Mike Biagioni David Sherrill	<p>Cover Updated photo</p> <p>Section 1.1 Chief Pilot added, Ref to printed manual deleted</p> <p>Section 1.2 Change Puchacz to 2-33</p> <p>Section 1.3 One L-23 was two, added hanger &amp; carts, 2-33</p> <p>Section 3.2.1 Glider Signup</p> <p>Section 3.2.2 Hookup New launch Procedure</p> <p>Section 3.2.3 Takeoff New launch Procedure</p> <p>Section 3.2.5 Class D Airspace</p> <p>Section 3.2.8 Glider Steering</p> <p>Section 3.6 No Fly List</p> <p>Section 3.7 Add "Everybody's 1st Gliding Book"</p> <p>Section 4.3.5 Remove Launch Instructions already listed in section 3.2</p> <p>Section 4.5 Incident reporting updated</p> <p>Section 4.6 Hanger (new section)</p> <p>Section 5.2 Scheduling</p> <p>Section 5.4.1 Basic Logger Instructions</p> <p>Section 5.4.2.2 Flight Log</p>
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		<p>Section 7.2 Scheduling  Section 7.3 Assigned Tow Pilot  Section 7.8 Glider Steering  Section 7.14 Pattern tow 1,200'AGL  Section 7.20 Noise sensitive areas added  Section 9.2 Glider Acquisition  Section 9.3 Incident sharing  Section 10.0 Chief Pilot (new section)  Appendix A 2016 rate sheet ASK 21 rental rate changed was \$30/hr  Appendix A Clarify pattern tow height as 1,200'AGL  Appendix C Remove L-23 N922SB  Appendix D Add references to fabric hanger, remove Birddog reference  Appendix F Change name to "ASK 21" Policy</p>
01/17/19	<p>George Young  Ravi Gondhalekar  Mike Biagioni  Tony Verhulst  Tom Orsini  Lew Klunk</p>	<p>Grammatical Revisions  Footer -Removed section numbers use only page numbers  Table of Contents –Use page number not section &amp; page  Section 3.2.1 – Note added  Section 1.6 Membership -90 Day Trial Membership added  Section 1.6 Membership- Emeritus Membership added  Section 3.2.1 Currency note added  Section 3.3.7 Aerobatics - Updated  Section 6.4.1 Altimeter setting remove setting to zero  Section 6.5 –Syllabus updated  Appendix A Removed date for rate sheet  Appendix A Delete credit for winch driver  Appendix E3.4 - Radio Operating Procedures  Appendix E3.4.2 – Radio Procedures Class C Airspace  Appendix F - ASK 21 Policy Deleted  Appendix F1- 90 Day Trial Membership added  Appendix F2 - Emeritus Membership added</p>
02/19/19	<p>Roy Bourgeois  Tom Witkin  Marcy Capps  Kevin Harnett  George Young</p>	<p>Appendix F – GBSC Minor Protection Policy added</p>
6/15/19	<p>George Young  Safety Committee  Ravi Gondhalekar</p>	<p>Section 3.2.12 .1&amp;2 Missing IP Altitudes put back.  Section 3.2.12.2 RW 16 IP altitude changed back to 1700 MSL  Minor grammatical formatting edits</p>
11/07/19	<p>George Young  Taylor Strack  Mike Biagioni  Eric Foertsch  Fred Looft  Bart Lenaerts  Tom Witkin</p>	<p>Section 1.3 Aircraft  Section 3.1.2 Inclement weather  Section 3.2.1.1 Junior signup added  Section 3.2.5 Appendix reference Appendix E was H  Section 3.3.4 Time limit exceptions numbering corrected  Section 3.7 Intro ride PIC responsible for paperwork  Section 4.3.6 Wing running details deleted use SSA wing running course</p>

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		Section 6.4.3 Section numbering was 6.4.2 Section 11 Chief Instructor added
01/26//21	George Young Tony Verhulst Safety Committee Tom Witkin David Sherrill	Put back missing footer & page # in some sections General editing & format cleanup Section 3.3.3 XC Flights: Aero Retrieve limitations added Section 9.1.1 Safety Committee added Section 11 Chief Instructor Appendix A Rate Sheet <ul style="list-style-type: none"> <li>● updated fees for 2021</li> <li>● updated Instructor and Tow Pilot credits for 2021</li> <li>● replaced the table of prorated dues for new members</li> </ul> Appendix E Radio Usage Appendix F2 Emeritus credit
8/20/22	David Sherrill	Removed winch operations Removed Orange Drag Strip Reunion  DRAFT Removed SFO and Logger roles (work in progress) Added Operations Coordinator (OC) role (work in progress)
4/1/23	Mike Biagioni Ira Blieden Roger Cichy Glen Kelley Shaun Keller Bart Lenaerts Eric Foertsch Mauricio Poodts David Sherrill Bill Tisdale Tom Witkin	<ul style="list-style-type: none"> <li>● Changed file format from Microsoft Word to Google Docs.</li> <li>● First steps toward moving operations and procedures to the Operations Manual (previously entitled Ground Procedures Manual). Much more work remains.</li> <li>● Numerous clarifications and improvements</li> <li>● Fully replaced SFO and Logger with OC and general members. This changed roles and responsibilities in many sections throughout this document.</li> <li>● Deleted 3.2.12.2 Landing Technique</li> <li>● Removed content of 3.2.2 Hookup and 3.2.3 Takeoff; these sections now refer to the Operations Manual. The separate Section 4.3.4 Hookup remains.</li> <li>● Section 3.3.7 Aerobatics, removed Board approval of instructors, aircraft and maneuvers.</li> <li>● Removed duplicate discussion of flight time limits from section 4.3.7.</li> <li>● Section 4.5 Emergency &amp; Incident reporting moved to the Operations Manual</li> <li>● Section 5.4.1 Logging rewritten, as there is no longer an assigned Logger</li> <li>● Section 7 Tow Pilots, changes in the sections for Assigned Tow Pilots, Speeds, Release, Descent, Landing, Pattern Tows, Passengers, and Open Spoilers.</li> <li>● Section 8.2: removed the glider status whiteboard; changes other sections as needed.</li> <li>● Appendix A - Rate Sheet updated</li> <li>● Appendix B - Signup Sheet, added the new L-33 Solo to the log sheet and removed the old L-33.</li> </ul>

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		<ul style="list-style-type: none"><li>• Appendix D - Checklists for OCs, extensively revised</li><li>• Appendix E - Radio Procedures, Position Reports changed</li><li>• Added Appendix H – Aircraft Return To Service Procedures</li></ul>
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In Section **3, *Flying*** and elsewhere, subjects in which safety deserves special emphasis are indicated in ***bold italics***.

# 1. OVERVIEW

## 1.1. Introduction

This manual provides much of the information necessary for safe, efficient, and enjoyable glider club operation. It is a useful resource for new members as well as veterans. The manual is organized into sections; the first two provide background information, the next two explain operational procedures and policies, and the last four explain personnel functions:

All sections – including Operations Coordinator, Flight Instructor, Tow Pilot, and Ship Captain – contain information useful to the entire membership. The manual is provided in PDF format via the GBSC website. Notices of updates are normally distributed through the club's *Towlines* newsletter as well as the email list.

GBSC is a dynamic organization with a dynamic flying environment. Therefore, it is very important for each member to have the most up to date information, rules and procedures. Once notified of a revision, it is the responsibility of each member to review and understand any additions or changes.

## 1.2. The Airport

GBSC operates out of Sterling Airport, located in Sterling, Massachusetts. Sterling Airport has a 3000-foot paved runway (runway 16/34) and a grass runway immediately adjacent to it.

**Car Parking:** The airport management has designated the space south of the T-hangar as the car parking area for gliding club members and guests. You may enter this area either from the end of the main airport parking lot or through the access path just before the main airport entrance. Under no circumstances should anyone park a vehicle south of the Green Shed.

**Access to the flight line:** With the amount of soaring pilots now at the field, it is unreasonable to expect the airport management to be happy with everyone walking through the fence and onto the flight lines:

Runway 34      All people walking to and from the flight line should walk behind the T-hangar and down the back path leading to runway 34. Spectators and club members whose presence is not actively **required** on the launch grid must remain in the area near the picnic table. With the increased landing traffic on the turf runway, this rule will be strictly enforced.

When the tow planes are not in use during operations, they are typically parked on the pads south of the 2-33 tie-down. Cars, carts, members, or visitors, should stay at least 30 ft clear from these areas to allow tow planes to maneuver safely. Runway 16 pilots and spectators may park on the west side of the

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private glider trailers and walk north to the logger table. From there, follow the tree line down to the end of runway 16. As on runway 34, a picnic table will designate the acceptable waiting area for non-flying and spectators. Private vehicles should not be parked north of the glider trailers as that space is needed for aircraft parking.

### **1.3. The Equipment**

GBSC owns the following aircraft and support equipment:

#### Tow planes

- One Cessna L-19 Bird Dog
- Two Piper PA-25 Pawnees

#### Two-place gliders

- One Schleicher ASK 21 (34:1 performance; advanced trainer, aerobatic)
- One Schweizer 2-33A (23:1 performance; trainer)
- One Blanik L-23 (30:1 performance; advanced trainer, sightseeing)
- One SZD 50-3 Puchacz (30:1 performance; advanced trainer, aerobatic)

#### Single place gliders

- One Schleicher ASW 19 (38:1 performance; cross-country)
- One Schweizer 1-26E (23:1 performance)
- One Blanik L-33 (30:1 performance; cross-country, sightseeing)
- One Schweizer 1-34 (34:1 performance; cross-country)

#### Simulators

- One Condor simulator with single seat glider cockpit & widescreen
- One Condor simulator with desktop display

#### Support Equipment

- One 50' x 70' fabric Hanger
- One Movable (Green) Shed
- Battery Room, attached to the FBO (not owned by the club)
- One Gas Golf Cart
- Two Electric Golf Carts

The club also owns several open and closed trailers for ground transport of gliders. Golf carts are used for towing both club-owned and privately-owned gliders about the airport. Please check the GBSC website for the most up to date status of this equipment.

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The success, growth, and longevity of GBSC are due to its self-sufficiency. Owning three strong, capable tow planes and a fleet of mixed performance gliders allows the club to operate anywhere there is an adequate runway.

### **1.4. Flying**

GBSC flies out of Sterling Airport on Saturdays, Sundays, and occasional weekdays and holidays from the first weekend in April through mid to late November. Normal operations start at 10:00 and continue as long as members wish to fly. Members wishing to get an earlier start may do so by prior arrangement with a tow pilot (and instructor, if required).

Fees for each flight depend on the glider flown, tow height, and the flight duration. Instruction is offered free of charge. The tow fee schedule is included on the GBSC Website and in [Appendix A](#). Consult the website for the most current rates.

The Sterling Airport doubles as the Sterling Fairgrounds. The Sterling Fair is held the week after Labor Day every year. During this time all flight operations at the Sterling airport are suspended, and GBSC moves most aircraft to another location. This is a great opportunity for members to experience flying in a different location.

#### **1.4.1. Encampments**

The club traditionally organizes three encampments each year.

- Ridge encampment at Mifflin County Airport in Reedsville, PA in April or May
- The Franconia Encampment in Franconia, NH, in September
- Mt. Washington Wave Camp is in Gorham, NH, in October.

Members are reminded that they are responsible for the glider they take to an encampment and are to return it to Sterling and reassemble the glider as soon as possible after the encampment has ended.

### **1.5. Club Communications**

GBSC uses three distinct websites:

- <https://soargbsc.com> is our public website. It hosts web pages for the general public as well as club members.
- <https://soargbsc.net> is our Operations website. It hosts web pages for club members only, with little public content. This site provides the weekly *Towlines* newsletter, schedules, rosters, fleet status, safety information and more.
- <https://gbsc.groups.io> hosts all GBSC email groups; see <https://gbsc.groups.io/g/main/subgroups> for a summary of all email lists. All members may send messages to all lists, but membership in some lists is limited to specific roles (Board of Directors, CFG, Tow Pilots, etc.). During the soaring season, each edition of *Towlines* is announced on the [Business email list](#).

Regional activities, such as Ridge Camp and Wave Camp, do not use email [gbsc.groups.io](https://gbsc.groups.io) for email since doing so would limit participation to GBSC members. As these events approach, a message saying how to join the event's own email list will be sent on a GBSC email list.



## **1.6. Organization of Club**

GBSC is a 501(c)(7) non-profit corporation, so GBSC does not pay taxes, but contributions are not tax-deductible. GBSC's charter is to promote the sport of soaring.

MIT Soaring Association (MITSA) is a 501(c)(3) Charitable Organization, so donations to MITSA are tax-deductible. The MITSA Juniors Program was developed to educate young people within the context of the sport of soaring, and through fundraising and contributions defray the cost of this education so it is available to all young people, regardless of financial status.

GBSC and MITSA merged their recreational activities in 2002, but remain separate corporations.

GBSC has a Board of Directors composed of three officers (President, Treasurer, and Clerk) and 4 directors. They meet as needed (the majority of business is conducted via email) and oversee operation of the club. The Board appoints various club members as committee heads and committee members. There are committees to handle operations, aircraft maintenance, flight instruction, and towing. All tow pilots and flight instructors are club members.

There is an Annual Meeting held in winter to discuss club business and plans for the upcoming season and to elect the officers and directors for the coming year.

## **1.7. Membership**

GBSC offers the following types of membership:

1. Regular Members - are those members at least 18 years old.
2. Family Members - are in the immediate family of Regular Members.
3. Junior Members - are those members under the age of 18.
4. MITSA Juniors Program Members – Members ages 13 to 18 enrolled and participating in the MITSA Juniors Program.
5. Student Members - are those members attending school full time through undergraduate status.
6. TOW pilot / Instructor Members – are those members who engage in towing & instructing activities on a regular basis.
7. Temporary Private Members - have their own glider and may join the club for one day, up to a limit of five times per year. Temporary Private Members cannot fly club gliders with the sole exception of check-out flights with a GBSC instructor.
8. Introductory Membership - temporary one-day membership for introductory glider lessons.
9. Guest Membership – temporary membership for the guest of a club member who will fly with a club member. There is no fee for this membership.

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10. Tow Only Membership – for members who do towing only and do not fly club gliders. Tow only members are at the discretion of the Chief Pilot.
11. Mutual Membership – As of 2010, an agreement exists among a number of New England region clubs to allow members to obtain tows at other clubs. Guests must be prepared to demonstrate to the host club insurance coverage for the glider they are flying and membership in SSA and their home club, in our case GBSC. Tows will be charged at the host club's rates and billing will be done by the pilot's home club or by cash depending on the host club's billing methods. Participating clubs: Connecticut SA, Franconia SA, Mohawk SC, New England SA, Post Mills SC, Sugarbush SA
12. 90-Day Trial Membership – In 2017 the Board of Directors instituted a trial membership category to allow prospective members to actually experience glider flying and the club environment before committing to a full membership. The specifics for the Trial Membership are detailed in [Appendix F1](#).
13. Emeritus Membership – In 2017 the Board of Directors instituted an Emeritus Membership category to recognize the contribution of long-time members who have become inactive, and provide a mechanism to occasionally fly with a GBSC member. The board decides on each emeritus membership based on individual merits. The specifics for this membership category are explained in [Appendix F2](#).

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[Appendix A](#) is the GBSC Rate Sheet. It contains the annual dues and initiation fee structure for all the different types of membership and is published on the GBSC Website. A bill for a portion of the annual dues (and initiation fee, if applicable) will be sent in early January and should be paid promptly.

There are a few more membership obligations:

- All members are required to be members of the Soaring Society of America (SSA). This is a requirement of our insurance policy.
- Club members not otherwise performing major duties are assigned OC duty for a full day, on rotation, typically two to three times during the season. Members may request two half-day assignments instead of a full-day assignment.
- Club members will be asked and are encouraged to participate in one of the club's committees.

### **1.8. Disclaimer**

Much thought and energy has been expended to produce an accurate, complete, and easy-to-read manual. If any portion of this manual is in conflict with Federal Aviation Regulations (14 CFR), 14 CFR obviously takes precedence. As always, compliance with Federal Regulations is the responsibility of the pilot in command (PIC). It is the responsibility of the PIC of any GBSC aircraft to make sure that they possess any required identification while on the airport property. In addition, all members must stay up to date regarding temporary airspace restrictions due to national security. All pilots are expected to get a complete preflight briefing before each day's flying.

## 2. CLUB HISTORY

In 1973, four glider pilots (Chris Bogen, Jose Segerra, Dezi Hamvas, and Peter Arnet) joined to form the Greater Boston Soaring Council in Pepperell, MA. The Council was a commercial operation that intended to consolidate and support the activities of the Monadnock (FAA), MIT, and other struggling soaring clubs. The Council, led by Chris Bogen, started with a Cessna L-19 tow plane, and two Schweizer SGS 2-33's. The aircraft were paid for, in part, by members who signed notes and by Dezi Hamvas who mortgaged his home. Although the Council was a commercial operation for the various soaring clubs, its primary intent was not to serve the general public with commercial rides.

The Greater Boston Soaring Council was not able to fulfill its intended purpose, nor did any ride business develop to help finances. Continued operation of the Council eventually became a financial burden on the members. Furthermore, the incorporation of the Council was becoming unworkable with all the quarterly reports demanded by the state. Thus, after less than one year the members decided to liquidate the Council and reorganize as a club.

During the reorganization, original member Chris Bogen dropped out. However, the remaining members recruited Joseph Grasso and John Zachistol and formed the Greater Boston Soaring Club (GBSC). Through vigorous recruiting, the club more than doubled its membership during the first year. Membership dues were \$200 annually and tows to 2500 feet were only \$8. Additional revenues needed by the club were raised from interest paying bonds that new members were urged to buy.

GBSC continued to operate at Pepperell for the next two years (1973-1975). During this time a dispute between the landowner and jump school operator threatened to curtail operations. The club tried to assist financially in resolving the dispute but lost a considerable amount of money in the process. Eventually, the landowner went to court over the lease and an order was handed down to close the field to all operations. During the off-season, members searched for a new location to operate and settled on Sterling, MA for the 1975 season. Members of the old Monadnock Soaring Club joined GBSC and brought their Blanik with them. During the stay at Sterling, the club also obtained a Lark and an SGS 1-26. However, one SGS 2-33 was lost in a non-fatal accident and the 1-26 twice suffered heavy damage.

Sterling was also home to a helicopter operation that eventually became incompatible with glider operations. Thus, GBSC moved to Groton where it operated for a short time in late 1981.

Because of rising rent at Groton, GBSC temporarily moved the club to Plymouth, New Hampshire, for the winter of 1981-1982. Finally, GBSC moved back to its original location at Pepperell, MA.

After moving to Pepperell, GBSC moved forward with improvements in capital equipment and increases in membership. In 1990, GBSC added an SGS 1-26E to its fleet of two 2-33's, two Pilatus B-4's and the L-19 tow plane. A Blanik L-13 was added in early 1993 when a former member offered to sell it to the Club. Improvements were made to the Pepperell airport by GBSC. In 1992 GBSC entered an agreement with the current airport owner to pave the runway in exchange for several years of rent. During these improvements, a new staging area for gliders was leveled but not paved at the southwest end of the runway. Having operated out of two old trailers for many years, GBSC decided to build a clubhouse in 1993. With the help of club volunteers, Arthur Ducharme designed and supervised construction of the building located next to the river.

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Also, during 1993, Capt. Eli's Glider Service began operation as a commercial service at Pepperell. Capt. Eli, a.k.a. club member Ritts Howard reached an agreement with GBSC to do all commercial and introductory rides and also to provide weekday towing for the club. This helped alleviate long waits during busy flight operations. The second tow plane also helped the club during unscheduled tow plane repair.

Throughout the years GBSC saw steady but small increase in membership through recruitment and word of mouth. However, the 1993 and 1994 seasons saw a great influx of new members when the Salem, NH-based commercial soaring operation closed its doors after more than 30 years of operation. Membership jumped from approximately 60 to more than 80 as Salem pilots, looking for a nearby place to fly, joined the club. During 1996, membership had grown to 93.

Membership stayed relatively constant during 1997 with gainers matching losers. Ritts Howard decided to phase out Captain Eli's Flying Service. GBSC purchased his Pawnee PA-25 tow plane and provided tows to him for the remainder of the season. Pepperell airport management insisted that GBSC personnel indemnify them in form of a waiver that was deemed unreasonable. Sufficient members declined and the club moved back to Sterling Airport for the start of the 1998 season. Sterling was now the home of both the MITSA and GBSC soaring clubs.

Although GBSC has not sponsored a soaring contest since the Sterling days, it does encourage cross-country soaring and participation in the SSA badge program. Several members are accomplished contest pilots at the regional and national level and travel around the country flying in various contests. In 1991, member Bruce Dyson became the U.S. Standard Class champion, earning him the honor of joining the US National Soaring Team and flying at the World Soaring Championships in Uvalde, Texas.

For many years GBSC has sponsored an annual trip to Franconia, New Hampshire, for some excellent ridge, mountain, and thermal soaring. Usually held on Labor Day weekend, the beautiful mountain scenery of Franconia provided a welcomed break from the flatlands of Sterling. In the late fall, the Franconia group moves to Gorham, New Hampshire for "Wave Camp" at the base of Mt. Washington. Also, on an informal basis, members occasionally take a B-4 to Pennsylvania or other glider ports to experience soaring in different environments.

During 2002, a proposal was made to combine the recreational aspects of GBSC and MITSA. This would allow each organization to better serve their stated purpose, with GBSC as the principal provider of recreational soaring aircraft and tow services, and MITSA as the principal provider of educational aircraft. Over the course of the next several months, the members of both clubs voted and both boards approved the proposal. MITSA was folded into GBSC. The new GBSC now has 160 members.

Glider clubs at MIT date back to Nov 1909 with Elisha Fales offering the club the use of his glider. In its early years, the club flew in and around Boston including Harvard's Soldier's Field, Newton, and Waltham. Prior to the formation of MITSA, gliding at MIT was under the auspices of MIT's Aeronautical Engineering Society (AES). By 1922, AES was in the forefront of designing gliders including the glider designed by Dr. Otto C. Koppen and Edmond T. Allen which they brought to meets at Clermont-Ferrand, France & at the Wasserkuppe, Germany. The club was very active prior to WW2 and did extremely well at meets in Harris Hill in Elmira, NY, including a second-place finish by Walter Lob flying a Franklin PS2 "Allaire." (Note: Harris Hill was named after Hank Harris, an AES member). Walter returned to MITSA in the late 1970's as an active member and instructor. The club was very active in the 1950's with many notable members including Dick Seaman, Bertha Ryan, Lloyd Licher, Walter Cannon, Sture Blom, Bernie Paiewonsky, Dick Comey, Leonard Parker, and many others. In the early 1960's gliding at MIT ceased.

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A successor to these clubs, MITSA was organized at M.I.T. in 1968 through the efforts of Ernst A. Steinhoff who arrived as a visiting professor to find no glider activity. Ernst held world records in Germany before WWII. He secured the support of Charles Stark Draper, head of the Aeronautics department, and other faculty, who undersigned the purchase of a Ka-7 and a Schweizer 1-26. Arthur LaPointe, a former Navy pilot, was a key figure in the early building of the club. Steve and Ann Fried (later to become Yankee Aviation at Plymouth) provided tow plane services followed by Joe Blucher. Larry Ryan and Ken MacDowel purchased the Cessna 150 tow plane from Joe prior to MITSA buying it. First flights were made at Groton Airport, a private field, in the spring of 1969, and the club moved to Sterling in August. When winter came, the club followed the Frieds to Plymouth.

In late 1970, MITSA attempted to find a home at Taunton airport but was rejected after a few weeks due to the limited space. It then moved to Norfolk Airport where it was to operate successfully for the next eight years, acquiring a Blanik L-13, a Schweizer 1-34 and two Schweizer 2-33s. A used 2-place Slingsby was bought, but it suffered a complete loss from an emergency landing after a low altitude release before many members had a chance to fly it. The Brown University club shared operations here for a time, using their L-13.

In April 1978, the club moved to Mansfield Airport and continued operations there for 13 years. During this period MITSA bought and later sold its only glass ship, a two-place Janus. In 1991 power traffic was deemed the reason to seek a new venue. Briefly, the club operated again at Norfolk Airport, and then returned to its home at Sterling Airport. At this time, the 2-33s were sold in favor of acquiring two new Blanik L-23 trainers, and a single-place L-33.

Originally designed to be a training club for student pilots, especially those from M.I.T. and other New England schools, MITSA opened its doors to anyone with a serious interest in flying gliders. As years passed, the ties with M.I.T. weakened, and the club began to take on the characteristics of any glider club, including numerous experienced private owners. This most recent change, of combining the recreational services with GBSC has allowed the MITSA organization to return to its training charter.

At the 2015 annual meeting the Club authorized the purchase of a new ASK 21 with enclosed aluminum trailer for delivery in the spring of 2016, and the purchase of a large, fabric hanger.

Although this is just a brief chronological history of the Greater Boston Soaring Club, the real history belongs to the stories told at the picnic table under the trees along the runway. Come out to the field, take a flight, and talk to the long-time members for the really interesting history.

## 3. FLYING

### 3.1. When Does GBSC Fly?

#### 3.1.1. Scheduled Flying Days

The GBSC flying season begins the first weekend in April if the field is usable (occasionally, it is too muddy to get the gliders out). The normal season typically ends mid to late November or when the field becomes unusable. The specific date is decided by the board in October in time to notify members of the scheduled decommissioning date. Limited winter flying is available depending on member interests.

Scheduled flying days are Saturdays and Sundays during the GBSC flying season. Flying begins at 10:00 a.m. and continues as long as members wish to fly. Should a member (particularly students) wish to start early it is encouraged that they contact the field personnel and schedule an early start. Early morning air often provides the best conditions for flight training.

An Instructor, a Tow Pilot, an Operations Coordinator (OC) will be assigned for each scheduled flying day. Members of the MITSA Juniors Program will be assigned to work the grid and retrieve gliders. To maintain a safe and efficient operation, it is imperative that all assigned personnel show up.

MITSA Juniors Program members receive training in the early morning and late evening during normal weekend operations as well as during dedicated “juniors-only” weekday evening operations in the summer months.

#### 3.1.2. Inclement Weather

Normally, GBSC flies as long as the weather satisfies VFR minimums. There is no formal mechanism for remotely determining whether or not GBSC is flying. Members can monitor emails posted to GBSC Talk, or try calling the field Cell Phone (978-990-2268). It is the responsibility of the duty instructor & tow pilot to determine if conditions are safe to fly

#### 3.1.3. Unscheduled Flying

**Midweek Flying** – By prior arrangement with a tow pilot, members may fly during the week. Solo students may fly with approval from a GBSC flight instructor who must be present at the start of the flight. Gliders are flown on a first-come-first-serve basis with normal weekend time rules applying. Midweek flying is coordinated via the winter/weekday email list. If you are interested in weekday flying, join the [WeekdayFlying subgroup at gbsc.groups.io](http://gbsc.groups.io).

The individual member organizing a weekday operation assumes all the responsibilities of the OC on that day. See the Operations Coordinator section for more details.

**Winter Flying** – Most club aircraft are put away for the winter on Decommissioning Day in November. Depending on member interest, the 2-33, 1-26 and a tow plane may be left out for winter flying. Snow and ice must be removed from the aircraft soon after storms to prevent damage and to keep them accessible for flying. Members who sign up for winter flying must help clear snow and ice throughout the winter. Members are assigned Snow Master duty for one week at a time on a rotating schedule. The Snow Master is responsible for keeping an eye on the weather and organizing a “Snow Party” when snow removal is needed. Members who sign up for winter flying MUST join the Snow Parties.

## **3.2. Flying a Glider at Sterling**

Glider operations are variable. Some days will have few members and only a handful of flights, but it is also possible to have as many as 40 flights in one day. Sometimes ground operations are slow because there are more members in the air than on the ground. Other days will have so many members at the field that some may not get a flight that day, especially if weather forces a late start or an early shutdown.

### **3.2.1. Sign-up**

#### **3.2.1.1. E-Signup**

The club uses an online registration system called E-Signup located on the [Ops website](#). E-Signup lets members sign up for an operation more than a week in advance. Members are expected to enter a signup for any operation they expect to join. The signup list provides an indication of how busy the day is likely to be.

Pilots must still add their name to the paper signup sheet before they fly.

#### **3.2.1.2. Signing up for a Glider at the Field**

A sign-up list is kept near the launch grid. All members are required to sign up prior to flying. Sign up procedures for club gliders and private tows are simple. The pilot does the following:

- Adds his/her name to the bottom of the list
- Adds the requested tow height (e.g., Pattern tow, 2k, 3k, 4k)
- Places a check in the “instructor” column if an instructor is needed
- Places a check in the desired aircraft column or writes in the contest or N number for the private ship being flown.

#### **NOTE:**

- It is the student pilot's responsibility to ensure their flight review or 90-day solo endorsement has not expired prior to adding their name to the signup sheet for a solo flight.
- When taking a passenger, it is the rated pilot's responsibility that at least 3 takeoffs and landings in a glider have been accomplished within the past 90 days and that his/her flight review has been completed within the past 24 calendar months.

Non-student pilots may only enter their name once on the sign-up sheet. After a flight, a pilot may sign up for another flight. Primary student pilots may sign up for two consecutive instructional flights, the total duration of which shall be within the one-hour limit, by filling-in two consecutive lines on the signup sheet. An instructor is assigned for each scheduled operation. To optimize instructor and aircraft utilization, the pilot needing an instructor takes the initiative in making contact with the instructor prior to the flight.

Note: Pilots requiring an instructor for a flight review (a.k.a. BFR), must develop a plan with the instructor in advance. Pilots requiring an instructor for more than one flight need to coordinate such activity with an instructor and the OC.



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### **3.2.1.3. Junior Signing up on Scheduled work day**

A junior's primary responsibility during their scheduled work shift is to provide ground support to the day's operations and assistance of a general nature as directed by the day's duty crew. If the situation presents itself that would allow the junior to fly during that time, he/she is encouraged to do so subject to the following limitations and ground rules:

1. Permissible times that an 'on duty' junior may take a flight are as follows:
  - a. In the morning, before full operations begin
  - b. At the end of the day prior to putting the gliders/equipment away
  - c. During the shift if there is no one waiting for the instructor and/or glider and with the OC's permission. Those waiting include members, guests, Intros, and FAST flights.
  - d. At any time, at the discretion of the OC
2. It is the junior's responsibility to monitor the flight list to determine if there is an opportunity to fly prior to the end of the day. If there is an opportunity to fly, he/she may then check with the OC to determine if they can be spared for the duration of their flight. If the OC determines that there is sufficient ground support available and gives permission, the junior may place their name on the flight list and then fly.
3. Juniors are required to sign out when they are not performing their assigned duties. If there is time remaining in the day's operation at the completion of their flight, they may sign back in and receive credit for time worked.

On extremely busy days, it may not be possible for an assigned junior to take a flight. Keep in mind that on a non-duty day, a junior has the same priority as any other member. They put their name on the next open line on the sign-up sheet and fly when their turn comes.

### **3.2.2. Hook Up**

Refer to [Section 9, "Hook Up and Launch"](#) in the Operations Manual.

### **3.2.3. Takeoff**

Refer to [Section 9, "Hook Up and Launch"](#) in the Operations Manual.

### **3.2.4. Spoilers Deployed on Tow or Ground Roll**

There is much concern and debate over unintentional glider spoiler deployment while on tow. Glider pilots need to monitor their climb rate on tow and periodically verify their spoilers are closed. If a glider's spoilers are deployed, GBSC tow pilots may do any or all of the following:

- alert the glider pilot via radio
- alert the glider pilot by rapidly wagging the tow plane rudder
- wave off the glider (near the airport and at a safe altitude, if possible)
- release the glider (near the airport and at a safe altitude, if possible)

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### **3.2.5. Class D Airspace**

Small airports, such as Worcester, with operating control towers, are Class D Airspace. See a current sectional chart for details.

An aircraft must establish radio contact with the control tower prior to entering Class D Airspace. Failure to do so is a violation of CFR 14.

### **3.2.6. Radio Procedures**

This section applies specifically to radio procedures when operating out of Sterling Airport. An overview of radio usage is provided in [Appendix E, Radio Usage](#).

The Common Traffic Advisory Frequency (CTAF) for Sterling Airport is **122.9**. It is important to keep transmissions clear and short to avoid congestion.

Set your radio to the Sterling CTAF when doing the following:

- taking off
- on tow
- landing
- communicating with the tow plane
- within two miles of Sterling Airport
- contacting GBSC base operations

For communications between gliders beyond 2 miles from Sterling, the proper frequency is **123.3**.

### **3.2.7. Boxing the Wake**

The accepted technique for boxing the wake is to first descend through the wake followed by going clockwise around the wake. This technique allows the tow pilot to differentiate glider steering from the initial movement when boxing the wake.

Alternate wake boxing techniques may be used upon Tow Pilot notification.

### **3.2.8. Glider Steering**

Glider pilots steer the tow plane by pulling the tail of the tow plane to the left or right. The tow pilot establishes a shallow turn in the yawed direction and waits for the glider to return to the centerline, before leveling out and establishing a new heading. It is recommended to contact the tow pilot first via radio for specific direction requests.

### **3.2.9. Rope release technique**

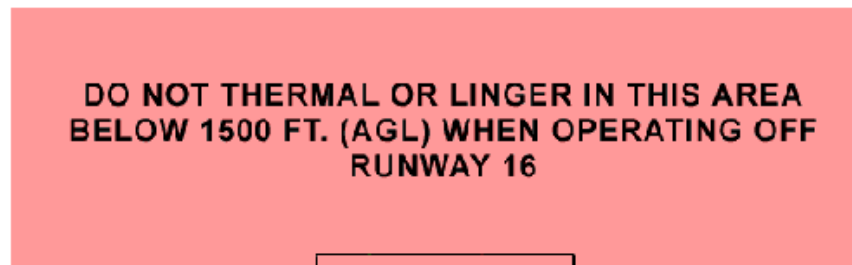
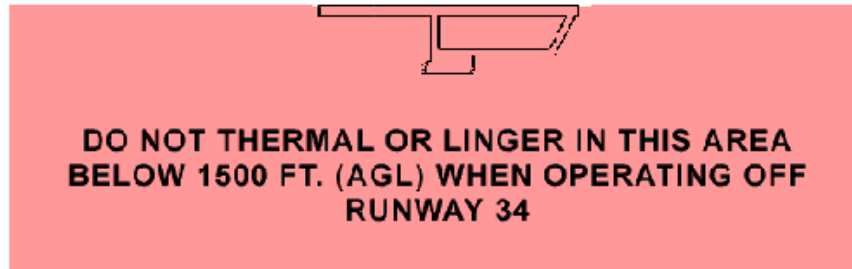
Do not release from tow unless the airport is in sight or the glider position is fully understood via ground references, and within gliding distance of the airport. Release should occur with normal load on the rope, avoiding high loads and light loads. Rope release should be visually verified prior to initiating a shallow, level right turn.

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### **3.2.10. High Traffic Areas**

There are two zones in which glider pilots should not linger or thermal to keep out of the way of landing and departing power aircraft. **DO NOT thermal or linger in the traffic pattern!**

The shaded areas below indicate high traffic areas.



### **3.2.11. Glider Pattern**

These are general descriptions of the standard landing patterns for both power and glider traffic at Sterling Airport.

In general, all power traffic will make left-handed patterns. Gliders will follow the standard patterns described below. There are situations where a glider pilot may not be able to follow the standard pattern due to lack of height or other conditions. In these cases, it is up to the pilot to make the correct decision to keep proper separation and land safely, but these cases should be rare. A glider pilot making low or unsafe patterns may be asked to complete further training or take a check ride with an instructor.

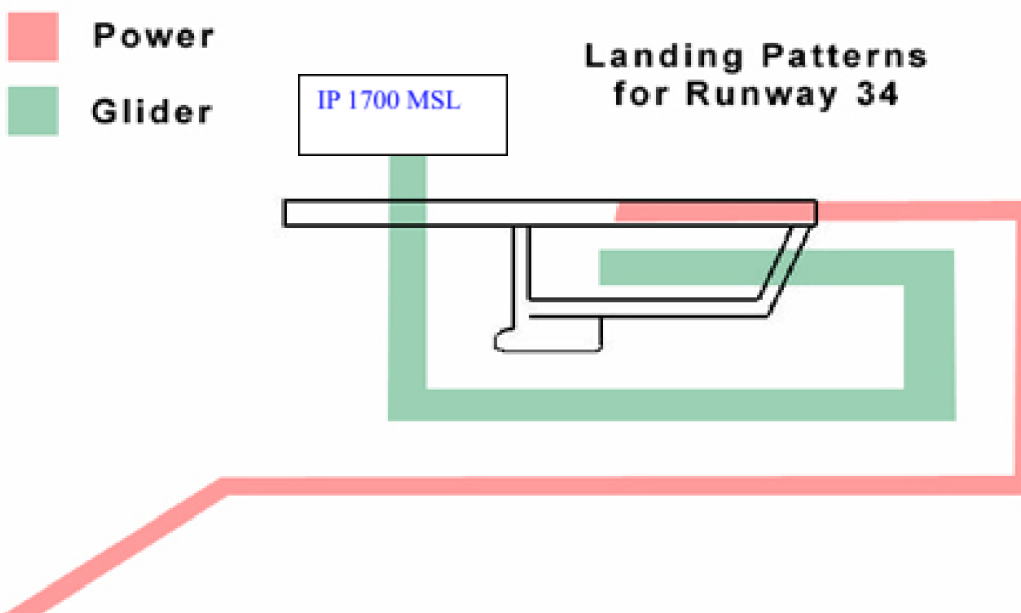
If for any reason it is safer to make a different pattern, there shouldn't be any hesitation or reluctance to do so because of reproach from instructors or other club members. The pilot's radio calls should announce the non-standard pattern to Sterling traffic.

In some cases, instructors may ask pilots to perform non-standard patterns during training or check flights. If you have any questions about different patterns, please talk to an instructor.

#### **3.2.11.1. Patterns for Runway 34**

**Pilots landing gliders on runway 34 will fly a left-hand pattern, inside the normal power pattern:**

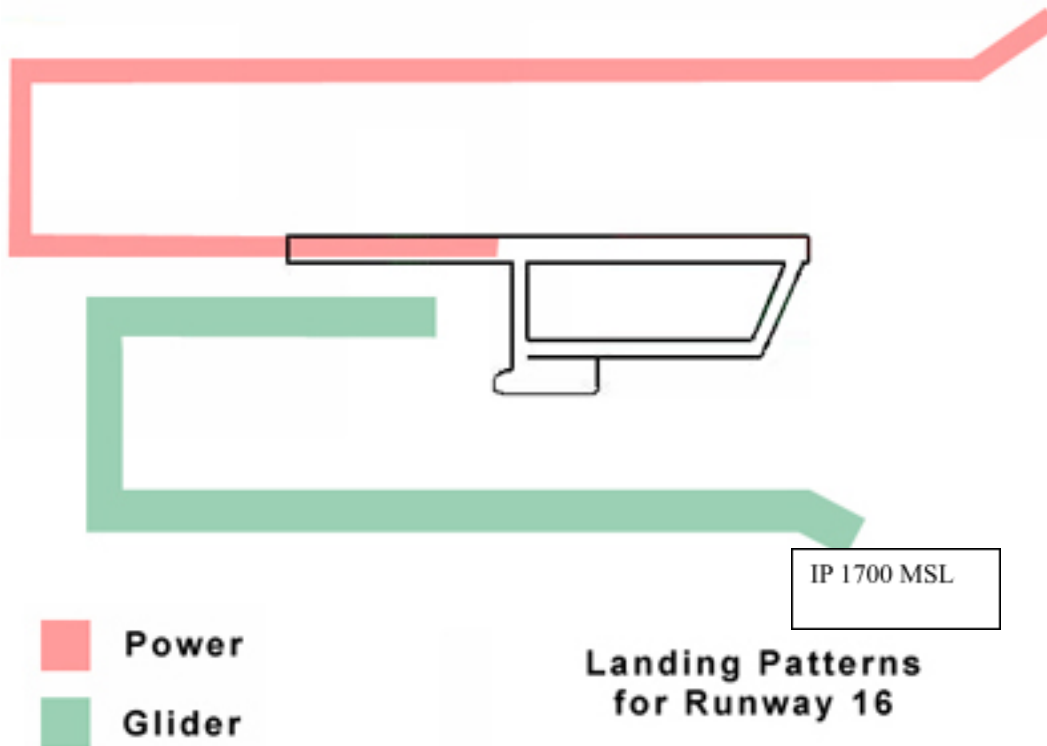
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### 3.2.11.2. Patterns for Runway 16

Pilots landing gliders on runway 16 will fly a right-hand pattern.

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### **3.2.11.3. Cross Country Pilots**

Remember, there are training flights going on throughout the day. In a lot of cases, there will be pilots with low experience in the area around the field. It is your responsibility to ensure good separation if you choose to merge into the pattern after returning from a cross-country flight.

No low level / high speed "contest finishes" are allowed within 1 mile of the airport. A pilot practicing such a maneuver away from the airport must complete the practice finish and return to pattern altitude before entering the pattern area. High-speed pull-ups to crosswind, downwind, or base pattern legs are prohibited.

## **3.2.12. Landing**

### **3.2.12.1. Landing Area**

Sterling has one runway (34 & 16) with an asphalt section on the east side and a grass section on the west side. All glider landings will take place primarily on the turf runway. The pavement is absolutely viable if it is safer than the grass environment, such as in winter flying or when someone stops right in the middle of the grass when you are on final. Pay attention to runway lights and power traffic. The PIC needs to use their judgment and follow the safest course of action. Some training in unusual landing situations is probably beneficial to glider students who don't normally do nearly as many landings as power students.

Generally, one or two gliders on the grass do not constitute an emergency. There is a lot of area and you should be able to land with little trouble.

Although Sterling does not have significant vertical obstructions on approach to either runway, there is major ground congestion consisting of people and gliders, and no guaranteed open space short of the displaced threshold. Approaches are to be high, with a steep descent angle and airspeed well controlled

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(a normal obstacle clearance landing). Available options for runway conflicts include the paved runway and/or landing beyond the cross taxiway. The minimum vertical and horizontal clearance over any obstruction on the field (Glider/Person/cart etc.) is 30 feet. Shallow, low-energy final approaches will not be tolerated.

If the 30' clearance is maintained gliders landing on runway 34 will generally be landing after the south end of the blue hangers.

NOTE: The grass is not exclusively a glider landing area. Power planes can and do use the grass for takeoff and landing. In the case of a power plane staged to take off on the grass, it may be wise to land on the asphalt if you are sure it is clear.

For runway 34, if a tow plane is staged to take off from the grass, it will usually be well off to the right side. When using runway 16, the tow plane will be well off to the left side. In either case, there should be plenty of room to land on the grass.

If you know there are other gliders landing behind you, land long and give them space to land. It is of paramount importance to clear the runway as much as possible on the rollout when it is safe to do so. When clearing the runway during the landing roll, make sure the glider is not headed toward an object which could be damaged if there were a mechanical failure, such as loss of wheel brake effectiveness.

### **3.2.12.2. Rollout**

Gliders should land STRAIGHT and level on the grass. Once the glider is firmly on the ground and under control, AND WELL SLOWED DOWN, it may be veered 20 to 30 degrees (no more) to clear the grass area.

It is important that you clear the center of the runway so that others may land after you. Once stopped, get out and move your glider to the side of the runway. Do not wait for a crew to assist you. Most pilots can move even the largest glider the distance required to clear the runway.

Do not leave your glider unattended.

### **3.2.13. Glider's Last Flight of the Day**

Members taking the last flight of the day in a given glider are responsible for securely tying down the glider. Check the signup sheet to see if yours is the last flight.

## **3.3. GBSC Limitations**

### **3.3.1. First Flight of the Season**

At the beginning of the GBSC season, all club members, including private ship owners, need a season checkout with an instructor. It is at the instructor's discretion as to whether a flight will be required.

### **3.3.2. First Flight in any GBSC Glider**

Each GBSC member must be approved by a GBSC flight instructor before their first flight in each make and model of GBSC glider. This checkout requires a logbook endorsement for insurance purposes. The pilot should also discuss the flight characteristics of the glider with a member who has first-hand experience flying the glider in question. Useful flight characteristic notes may also be found on the [Glider Fleet Status pages](#). **READ THEM.**

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### **3.3.3. Cross-country (XC) Flights in GBSC Gliders**

GBSC supports members wishing to fly XC using club gliders. These guidelines define the procedures for using club ships. It does not address flight skill development as members should work with the instructors as required for their own situation. The SSA badges through Bronze are excellent training templates (although not required).

For this section, the definition of XC is "any flight that extends beyond 50% of the best no wind glide performance of the glider from the takeoff airport". (For example, L33 Solo = 32:1 = 6 sm per 1000', and 50% of that is 3 sm per 1000' above field elevation, assuming no wind.) While admittedly arbitrary, this rule is simple and unambiguous (no excuses for not knowing if the XC rules apply). If you work the scenarios a bit, it feels about right. Expanding the last example, if you are over Fitchburg in the 1-34, you are 9 miles away from Sterling and need 3000' to cover those 9 miles, plus 1200' pattern height, plus 460' field elevation, which adds up to roughly 4700' MSL to make it home (again, in no wind conditions).

Of course, this definition is just for enabling these rules, and the pilot must always consider the actual flight conditions for safely returning to the field.

Members making XC flights in club ships are required to review their flight plan with an instructor prior to the flight and after the flight. A Private License or higher is required. Flight plan reviews are necessary until the member receives instructor approval for unsupervised XC flights. The specifics of the review are determined by the instructor and no logbook entry is required. The idea is to keep in touch but allow the pilot to do what he thinks is right.

**Land-Outs:** Land-outs at airports for an aero retrieve are most desirable. If aero retrieves cannot be ensured, the member should ensure that a proper ground retrieve has been planned (trailer condition, crew, etc.). To encourage new XC pilots to venture away for the home airport, the retrieval fee for the very first land out at an airport will be paid for by the club (aero tow fee still applies).

**Aero Retrieves:** For safety reasons, GBSC will not allow aero retrieves from any location that is: privately owned, or unpaved, or marked as "closed" or "abandoned" on the current sectional chart, or has a paved runway less than 2500' per the current sectional chart. There are no exceptions. Both the glider pilot landing out and the retrieving tug pilot are responsible for compliance with this policy. Tug pilots may decline an aero retrieve at any time even after flying to the retrieve location. This policy can be waived only by a tug training instructor or the Chief Pilot.

Specifics: The foregoing will prohibit aero retrieves from all of: Spencer MA, Zim NH, Brookline NH, Mason NH, Intervale NH, Garbedian (the "unknown" paved airport at Rts 495 & 90), Crow Island, Passport, Ware, Toutant and Woodstock CT. The Committee understands that we have done aero retrieval from some of these locations in the past but we believe that the risks of doing so outweigh the benefits.

**Cross Country:** Pilots flying club gliders x/c must give the OC a note containing:

- 1) The "intended" route
- 2) The name of whom they have made arrangements with for an auto retrieve (should it become necessary) or a statement that the pilot intends always remain within gliding distance of airports capable of aero retrieves.

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3) The pilot's cell phone number (if available). Weekday pilots must attach the note to the daily flight log. This requirement is mandatory for all x/c flights in club ships that will not be completed in one hour and encouraged for those less than an hour.

### **3.3.4. One Hour Flight Limit**

Flights in GBSC gliders are limited to one hour. There are five exceptions to this rule:

1. The ASW 19B and the L-33 are limited to two hours.
2. A two-place ship with two members (both on the sign-up sheet) sharing the flight is limited to 2 hours.
3. The limiting of flight times on busy days,
4. Extended flight times when there is no demand for the glider,
5. Reserving a glider for cross country or badge flights.

The third exception usually occurs on those days when the soaring is exceptionally good and the waiting list for various gliders is quite long. At the discretion of the assigned instructor and/or OCs, flight time limits can be applied to certain gliders. Flight times may be reduced to 45 or even 30 minutes, depending on the size of the waiting list. If the line at the grid is getting unmanageable then flight times may be extended in order that the tow pilots may get caught up and reduce the number of gliders in the grid.



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The fourth exception occurs when there is no waiting list for a particular type of glider. In this case, pilots can continue flying until someone wants to use the glider. Flying beyond the one-hour maximum must be done in the following way:

- The glider pilot informs the OCs of their intention for an extended flight.
- The onus is on the glider pilot to ascertain nobody is waiting for the glider.
- Just prior to one hour, the pilot contacts GBSC ground on 122.9 to verify there is still no waiting list. If GBSC ground is not responding on 122.9, the pilot lands.
- Beyond one hour, the pilot monitors 122.9 for the duration of the flight and lands within 10 minutes of being called.

An adjunct courtesy to the above rule is that no pilot should be called down if an airworthy equivalent glider is available (even if it needs to be untied and preflighted).

The fourth exception applies for XC flight plans that require more than the standard limits for club gliders. In such cases, the glider may be reserved for as long as necessary to execute the specific flight plan, which may be all day. To reserve a glider, the member notifies the assigned OC of his/her intention to fly an XC task and the need to reserve the glider. The OC notification may be several weeks in advance, or the day of the flight (in person). Initially, the OC will permit a maximum of one single place glider reservation per day, on a first requested, first reserved basis. For weekday flights, the tow pilot will fulfill the OC reservation duties.

### **3.3.5. Towing Non-GBSC Club Gliders**

In addition to towing GBSC club-owned gliders, GBSC can tow any other glider piloted by a qualified GBSC member, regardless of whether the pilot personally owns the glider. This includes temporary 1-Day members who are using their own glider, a borrowed glider, or a glider from another club. Temporary 1-Day members must be SSA members as do all members of GBSC.

### **3.3.6. Encampments**

Any member taking a GBSC glider to an encampment must be checked-out for that glider (as per sections 3.3.2)

When you go to an encampment for the first time and want to use GBSC equipment, you have to get familiarization flight from a pilot who flew in this place and is familiar with it.

### **3.3.7. Aerobatics**

#### **Pilots**

No pilot shall intentionally perform any aerobatic maneuver, including spins, in a GBSC aircraft without meeting the following requirements:

1. The Pilot shall have a logbook endorsement for the maneuver from an instructor qualified to issue such an endorsement. See **Instructors**, below.
2. The pilot must have completed an annual check ride with a maneuver-qualified instructor. (Because: a) skills unused deteriorate; b) aerobatic skills deteriorate quickly; c) the margin for error in some of our gliders is small.)
3. If the ship at any time exceeds its flight envelope or executes an unapproved maneuver (e.g., tail

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slide), the pilot shall immediately land, ground the aircraft, and notify the ship captain to arrange an inspection of the ship.

4. Both occupants of a two seat glider shall wear a parachute.

### **Instructors**

No GBSC instructor shall issue a logbook endorsement for an aerobatic maneuver in a GBSC aircraft unless s/he is qualified.

1. An instructor shall be deemed qualified to instruct a specific maneuver if s/he:
  - a. Receives a logbook endorsement for the maneuver from a recognized aerobatic training organization or operation;
  - b. Has received an endorsement from a maneuver-qualified instructor; or,
  - c. The board has good reason to believe the instructor is competent and current in the maneuver.
2. An instructor shall provide ground and flight training on the maneuver and aerobatics before issuing an endorsement.
3. The ground training shall include instruction on:
  - a. Specifics of the maneuver, including required entry speeds, maximum speeds, required g-ranges, maneuver hazards, and maneuver abort procedures;
  - b. Bailout and parachute use;
  - c. FAA regulations pertaining to aerobatics; and
  - d. General aerobatic considerations including the effect of exceeding flight envelopes on the aircraft and the subsequent users of the aircraft.

### **Aircraft**

GBSC aircraft shall not be used for aerobatic activity unless the aircraft meets the following criteria:

1. The aircraft shall have a working G-meter for any aerobatic maneuver, excluding spins;
2. An aerobatic maneuver shall be performed only in an aircraft for which the POH specifically allows that maneuver and there is no subsequent AD that prohibits it (such as the 1-26 and 1-34);
3. Hammerhead maneuvers are prohibited if the aircraft is not rated for tail slides.

### **Violation**

Violation of these policies is subject to termination of membership.

## **3.4. Special Group Events**

All group first flight and special events (including event date, equipment, staff, and discount) need to be approved by the board at least two weeks before the day of the event. A group consists of more than five people.

## **3.5. Visiting Pilot Requirements & Fees**

### **3.5.1. All Visiting Pilots**

- Check-out by club instructor in club glider as needed, determined by the duty flight instructor.
- Fee for tow in their glider
- Fee for GBSC Day membership
- SSA membership for insurance purposes.
- See [Appendix A](#) for fees

### **3.5.2. Region 1 Member Pilots**

A Region 1 Club member is a member in good standing of one of the following clubs: Connecticut Soaring Association, Franconia Soaring Association, Mohawk Soaring Club, New England Soaring Association, Post Mills Soaring Club and Sugarbush Soaring. Visiting Region 1 pilots fly at GBSC rates

See [Appendix A](#) for fees

## **3.6. No Fly List**

In order to exercise flying privileges, the following requirements must be met:

- You must be a member of SSA
- Your Emergency Contact Information must be in the GBSC membership profile.
- You have complied with the annual GBSC Spring Safety program.
- You have not been prohibited from flying for some serious infraction.
- Your GBSC payments must be up-to-date. Any bill that is overdue by 30 days and in excess of \$100.00 dollars will be considered overdue. If paying your monthly statement in a timely manner is a problem, making an advance payment is a good way to prevent late payment from getting you on the no-fly list.

If you are not in compliance with all of the above requirements your name will be put on the No-Fly list and you will not be allowed to fly GBSC gliders or be towed by GBSC tow planes. The No-Fly list will be issued each Friday during the flying season and will be made available to the OC.

The intent of the no-fly list is to encourage members to comply with the club rules and their responsibilities as members. It would save the club a lot of work if this list did not need to be generated. Do your best as a responsible member to prevent this list from having to be made.

A person can get off the no-fly list for late payment after showing up at the field by either contacting the Treasurer regarding the payment issue or paying the overdue balance by cash or check (check preferred) to the duty personnel at the field that day.

## **3.7. Introduction to Soaring Flights**

GBSC offers the general public and persons interested in joining the club the opportunity to experience glider flying in a two-place glider with either a commercially rated pilot or flight instructor on weekends

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during the normal season. The tow is to 3000 ft AGL.

SSA FAST flights have the same priority as Member instructional flights. After 2:00 pm, Intro Flights have the same priority as Member flights.

The Introduction to Soaring Flights are for the exclusive purpose of introducing prospective new members to the club.

The OC should give first priority to the duty flight instructor if there are no students waiting for instruction. Second priority is given to any flight instructor or GBSC approved commercially rated pilot that has informed the OC they are available for Intro flights. The commercial pilot must be approved by GBSC's Board of Directors, and the list made known to the duty officer.

[Fly A Sailplane Today](#) (SSA FAST) program

Intro flights with FAST vouchers require ground instruction and flight instruction with a GBSC certificated glider flight instructor. The SSA directly supplies the FAST participant a flight log book, Everybody's 1st Gliding Book, a copy of the SSA Soaring magazine, and 3-month membership in the SSA.

Payment is by cash, personal check, GBSC gift certificate, or a FAST program voucher. If the passenger decides to join GBSC, the intro flight is charged at the member rate, and the remainder of the payment is credited toward a future flight(s).

Members can purchase gift certificates for the price of a 3K tow and the glider rental fee. The primary purpose of this privilege is to allow the member to donate a glider flight to a charity event at a reduced rate. Gift certificates are available from the Membership Chairman.

It is the responsibility of the PIC to ensure the passenger's paperwork (FAST, Intro, Guest) is properly & completely filled out and payments are in the possession of the logger on duty. If no logger is available, the PIC will make sure flights are logged and paperwork & payments are in the payment box.

Additional information about these flights and GBSC Introductory Flight gift certificates may be obtained from the membership chairman via email to [membership@soargbsc.com](mailto:membership@soargbsc.com) or on the [GBSC website](#).

## **4. GROUND OPERATIONS**

### **4.1. Definition**

Note: Additional details may be found in the GBSC “Operations Manual”

NOTE: If there are differences between the “Operations Manual” and this document, this manual will apply.

Ground Operations consists of all GBSC activities involved in the following three segments of the flying day:

- pre-flight line operations
- flight line operations
- post-flight line operations

To ensure efficient and safe operations an OC will be assigned to coordinate and control these activities for each scheduled flying day. The scope of their duties is covered in detail in Section 5.

At least two members of the MITSA Juniors Program will be assigned to assist with grid operations and the retrieval of gliders. These young people are NOT expected to do all the work. Other GBSC members will be required to assist with any tasks necessary to keep operations running smoothly, safely, and efficiently.

### **4.2. Start of Operations**

Pre-flight line operations consist of the activities necessary to have at least one of the two place gliders ready for flight by 10:00 a.m. on a scheduled flying day. This includes:

- opening the Green Shed
- placing the GBSC sandwich board near Greenland Road
- setting up the logging table
- placing the red “Stop the Bleed” kit on the logging table
- placing the orange pylons to guard the tow plane pads
- readying the golf carts
- setting out and inspecting tow ropes
- preflighting at least one two-place glider and moving it to the staging area

For the most part, these tasks will be performed by GBSC members and Juniors with oversight from club

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members. Other members preflight the other gliders. The first member of the flying day to use one of the other gliders will be responsible for performing the initial preflight inspection.

Tow pilots assigned for AM SLOT should preflight before 10 am ready to tow at 10 am

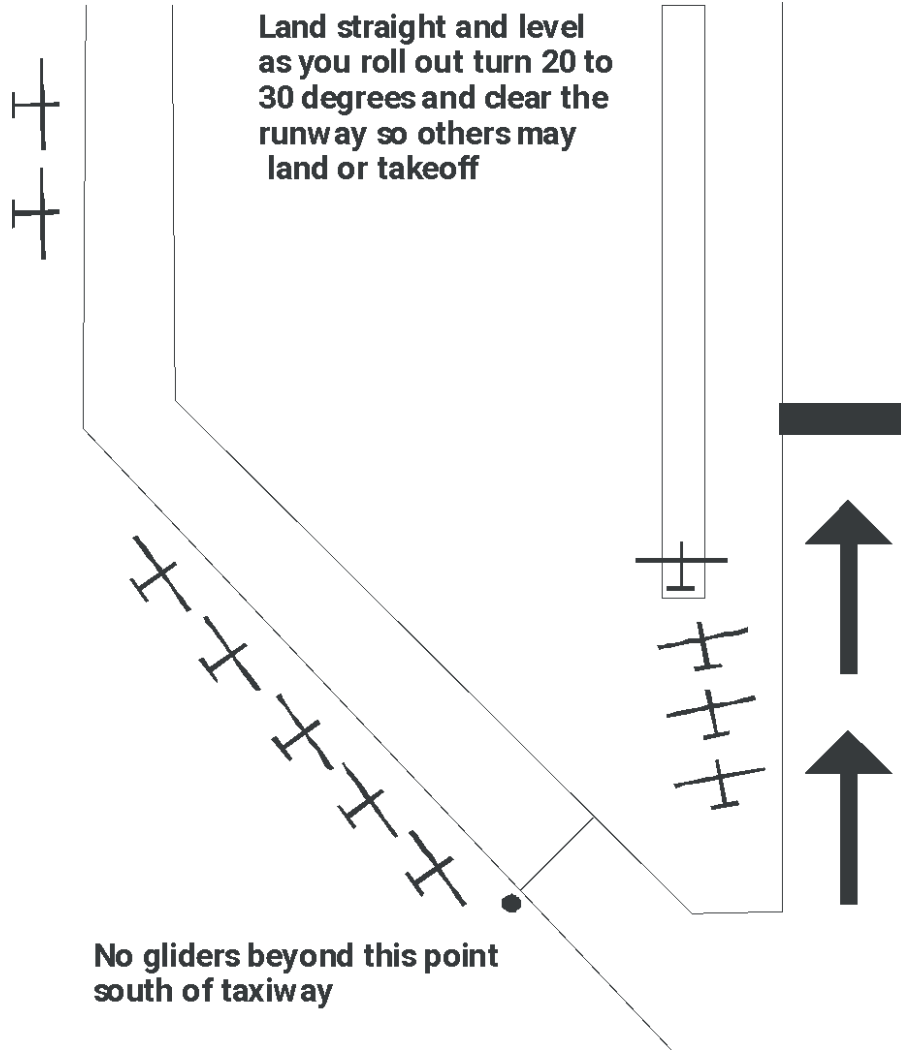
**Note: It is ALWAYS the responsibility of the PIC to preflight his or her glider prior to use. Do not assume that because the glider flew before, it is ok.**

[Appendix D](#) has the pre-flight line and post-flight line checklists for ground operations.

### **4.2.1. Moving a Glider to the Staging Area**

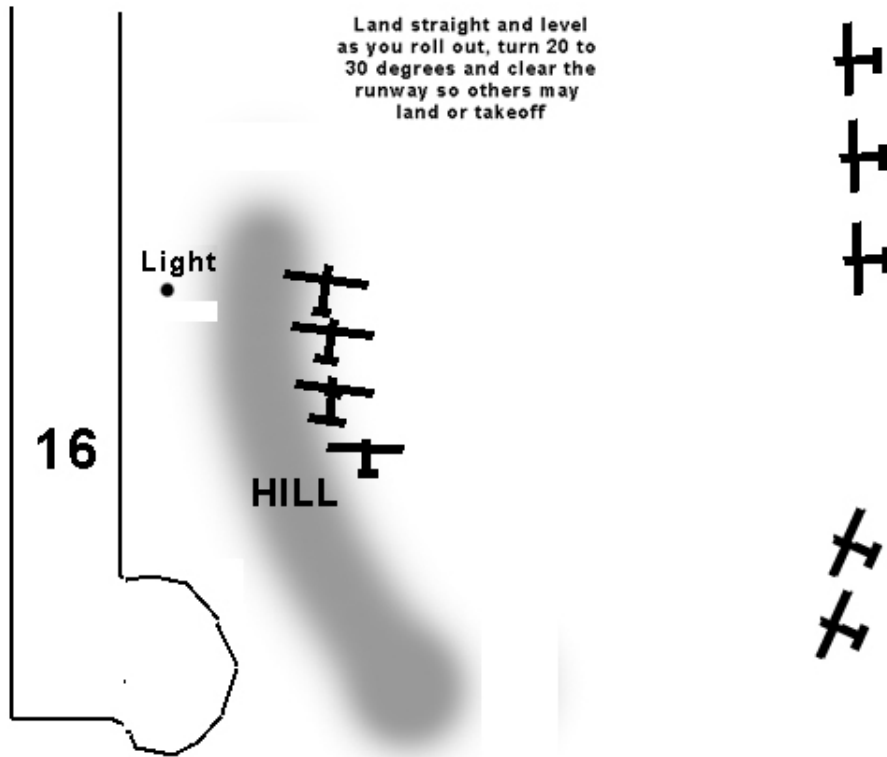
The primary staging area for takeoffs on runway 34 is at the southern end of the runway between the taxiway and the street. This space is limited. Private gliders should not push down here until they are ready for immediate launch. If you (or the conditions) are not ready for launch, you are requested to remain in the assembly area. No vehicular traffic is allowed on the airport operating area. Carts are accepted, but no cars, trucks or vans, may be used for ground tow unless equipped with factory recommended tow out gear.

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For runway 16, the staging area is on the northwest end of the field close to the trees.



Care must be taken in moving and parking gliders in these areas. Park the gliders such that there is no possibility of collision due to sloppy movement or the wind moving them. Position the aircraft with the downwind wing on the ground, dive brakes deployed, and the canopy closed.

Carts are used to move gliders. The directions for operating the carts are on the vehicle.

### **4.3. Flight Line Operations**

Once all pre-flight line operations are completed, the OC and MITSA Juniors will turn their attention to the flight line and launching gliders. The OC is in charge of the overall operation. His/her primary duty is to ensure that the operation is safe and efficient and conducted in accordance with the procedures spelled out in this manual. Cooperation by all GBSC members is essential. Again, the OC and Juniors are not expected to do everything. Experienced members will be asked to help with hookups, wing running, glider retrieval, or any other tasks deemed necessary.

Juniors can also assist with logging.



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### **4.3.1. Launch Order**

The sign-up list establishes the basic launch order. For club gliders, it also establishes the order of pilots using the glider.

The OC has the authority to change both the launch order and the order of pilots using club gliders.

You must be ready to fly. It is the pilot's responsibility to monitor the grid and to be fully ready when it is his/her turn to launch. It is considered "bad form" to keep the tow pilot waiting. If a pilot is not ready or decides not to take a flight when their name comes up, the next pilot on the list will be reassigned to the flight (and glider). The pilot who declined to fly then becomes the next pilot in line.

The pilot's name is entered in the log after takeoff. The pilot's name is crossed off from the sign-up sheet after launch. This helps keep the sign-up order up-to-date.

To maximize use of our instructors, instructional flights may be given priority over other flights in the launch sequence. This does not mean always launching them next, but it does mean attempting to maximize their utilization. Typically, an instructional flight is inserted into the launch sequence after two non-instructional flights. Additionally, be aware of special circumstances, such as Practical Test flights in progress. These should be given priority.

### **4.3.2. Pedestrian Controls**

No one should be standing on the edge of the taxiway, or in active areas of the airport, such that any aircraft must maneuver around the person. All need to be aware of infringing the operating areas of the airport. In addition to being aware of ourselves, we need to be truly diligent about other spectators in the area. If you see someone unescorted by a member of our club, approach them and direct them to stand off the taxiway at, or north of, the picnic tables (for operations on 34). If you see someone that looks lost out in the operating area, react as if you saw a toddler approaching a swimming pool. They need to be saved from themselves.

### **4.3.3. Moving a Glider onto the Grid**

As room becomes available on the grid, the OC will direct the next glider in the launch order to reposition from the staging area to the back of the grid. Once on the grid you should never leave the vicinity of your aircraft. Don't be distracted by others in line and concentrate on what you need to prepare for takeoff. On a busy day with 3 tow planes running, you should be seated in your glider no later than the 3<sup>rd</sup> place from the front of the line. You should not be rushed for takeoff, and the best way to avoid this is to be ready for launch before it is your turn. Don't worry about moving up in line as the MITSA juniors and other pilots farther back in the queue will help push you up.

### **4.3.4. Hookup**

GBSC currently uses a Tost tail release on the Pawnees and a Schweizer release on the Birddog tow planes. NOTE: Since the tow lines are made up with a Tost ring at both ends, the WHITE ADAPTER must be used on Birddog end.

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### **4.3.4.1. Tow plane releases and tow ropes**

The tow plane will drop the rope near the paved runway on its return. If the line is dropped on the paved runway it should be retrieved to the near side of the runway as soon as safely possible. The rope on the runway could present a hazard to arriving or departing power traffic. Once a tow plane has arrived at the grid, the tow line needs to be attached. After attaching the tow plane, return to the glider to connect that end. It is always a good idea to walk back with the rope sliding through your hand so you can better examine the rope for knots or abrasions.

The GBSC tow ropes consist of 200' of 5/16" hollow-braid yellow polypropylene rope (rated at 1,500 lbs.) with a Tost ring pair at each end. Per CFR 14 91.309, this rope is acceptable for gliders with a Maximum Certified Operating Weight between 1875 lbs. and 750 lbs. All club ships meet this criterion except the Schweizer 1-26E with a MCOW of 700 lbs., consequently, a weak link is used with the 1-26E. The weak link consists of a 1 ft long section of 1/4" 3-strand yellow polypropylene rope (rated at 1130 lbs.) with a Schweizer ring at one end and a loop at the other. Per CFR 14 91.309, this weak link is acceptable for gliders with a MCOW between 565 lbs. and 1412 lbs. The PIC is responsible to ensure that the tow rope and weak link/adaptor is appropriate for the glider he is flying.

### **4.3.4.2. Adapters and Weak Links**

Glider tow releases also come in two different types. Tost and Schweizer. The Tost release uses a small (~1 in) ring with a larger ring that is attached to the line. The Schweizer release uses a single large (~2 in) ring which is attached to the line. As one might guess, Schweizer gliders use Schweizer releases, almost all other gliders use the Tost release. Use of the wrong ring(s) on the wrong release can cause malfunction.

To keep our procedures as consistent as possible, our tow lines are equipped with the Tost rings at both ends. To connect a Schweizer glider to the tow line, a weak link or adaptor must be used.

- The 1-26 requires a weak link (1 ft long, 1/4" yellow poly rope). It has a loop at one end and a Schweizer ring on the other end.
- The 1-34 and the 2-33 require the white adapter (1 ft long, 3/8" white nylon rope). Again, the adapter has a loop at one end and a Schweizer ring on the other. The adapter is far stronger (rated at 3240 lbs.) than the towrope.
- All other club gliders require the TOST Ring (smaller ring on the end with two rings).

The adaptor and weak link are attached to the tow rope in the same manner. Attach the adapter/weak link by passing the loop of line through the Tost ring and then pulling the Schweizer ring through that loop. This will result in a ring hitch (or cow hitch).

Tow ropes and adapters/weak links wear out with use and abrasion. If the rope/adaptor/weak link appears worn or frayed, it should be retired. Place the retired rope/adaptor/weak link in the Green Shed "Old Rope" bin so the parts may be used to make a new one. If the rope/adaptor/weak link is in an unsafe condition, cut it to discourage further use.

### **4.3.4.3. Glider hookup**

When you have configured the tow line as needed for the glider, "present" the end you will be hooking up to the pilot of the glider. She/he has the final say about the proper configuration, and condition of the

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rope. When she/he signals you to hook up, do so, indicating with an open hand and then closed hand to open and close the release. Ask if the pilot would like a test release. If they indicate they would like one, apply tension to the line as they pull the glider release. Reattach the line, and give it a good tug, to be sure it is firmly attached.

### **4.3.5. Wing runner signals**

See [FAA Glider Flying Handbook](#)

Use the large orange colored paddles or flag to aid visibility of SSA approved hand signals.

### **4.3.6. Running Wings**

Refer to the [SSF Wing Running Course](#) for complete description. All members should complete this course.

Also watch the [launch video](#) on the GBSC web site.

### **4.3.7. Flight Limitations**

#### **4.3.7.1. Reduced Flight Time (See [Section 3.3.4](#))**

#### **4.3.7.2. Bad Weather**

If the weather takes a turn for the worse, the OC confers with the assigned instructor and assigned tow pilot about shutting down flight operations. At the first sign of bad weather, the gliders should be moved to their tie-down areas and secured. The assigned instructor has the final word on shutting down operations. In any case, all regulatory limitations contained in CFR 14 part 91 and the aircraft POH regarding wind, ceiling and visibility must be observed.

## **4.4. Post-Flight Line Operations**

This activity consists generally of securing the gliders, the hangar and the green shed. Again, while this is coordinated by the OC, the tasks are performed by other members. Specifically, **the last member to fly a glider is responsible for tie-down.** Check with the OC to determine if you are the last flight of the day for that glider.

[Appendix D](#) contains a post-flight line checklist for reference.

## **4.5. Emergency & Incident reporting**

Refer to [Operations Manual, Section 21. Emergency Procedures and Incident Reporting.](#)

## **4.6. Fabric Hangar**

Normally the Fiberglass gliders and fabric-wing Pawnee will be stored in the hangar. During the winter shutdown, the hangar stores club gliders on trailers.

### **4.6.1. Hangar Use & Limitations**

Per agreement with Sterling Air Inc:

#### **Storage:**

- Only gliders, tow planes, trailers and associated equipment may be stored in the hangar. The Maintenance Manager has final say on what associated equipment may be stored in the hangar.
- Space may be rented to GBSC members only
- No storage of gasoline, diesel, propane or other fuels in any quantity. Gas for the carts is to be stored in the Green Shed or FBO hangar (with FBO manager permission).
- No storage of grease, oils or solvents in containers greater than quart size

#### **Usage:**

The hangar may be used for minor maintenance such as:

- Glider annual inspections (not powered airplanes)
- Minor maintenance such as those allowed by FAA 14 CFR 43.3(g), Preventative Maintenance by private pilots (e.g. cleaning/waxing, replacing tires, lubrication, small cosmetic surface repairs, seat belt replacement, etc.).
- Case-by-case approval must be obtained from Sterling Air for activities other than the above. Contact the Maintenance Manager prior to requesting any such approvals

#### **Limitations**

- No open flames, BBQ-ing or welding allowed inside the hangar
- Either close or tie open the personnel door to avoid wind damage
- Never attempt to chip ice or remove snow from the bottom of the hangar fabric door due to risk of damaging the fabric.

### **4.6.2. Hangar Door Operation**

- Refer to posted instructions for raising and lowering the large fabric door. Instructions are also posted on the GBSC website.
- Do not over tighten the door once the tie-down hooks are attached. There should be 2-3 inches of side play on the center vertical cable.
- Do not raise the door above the 9 ft mark, as that is sufficient to clear all the gliders and tow planes.
- Close and tie down the hangar door when winds are forecast to exceed 20 knots

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- Door should raise and lower with moderate effort. If the door hangs up, STOP and investigate. The winch has substantial mechanical advantage and has the potential to damage the door.

### **4.6.3. Loading and unloading gliders and tow planes**

- Refer to posted instructions for maneuvering gliders and tow planes into and out of the hangar.
- For gliders, two persons MINIMUM are required to move a glider, one at each wingtip. A third is strongly recommended to monitor clearance for glider tails and noses.
- Only use the dolly marked for glider use on the gliders. The other dollies are for trailers.
- Take care to avoid rolling over the hangar door tie downs with the dolly.
- Once positioned, glider wing stands are MANDATORY to avoid wing-to-wing contact where there are overlapping wings.
- Place drip mat under the Pawnee engine to catch leaking fuel/oil
- Always lower the glider main wheel or trailer wheel and spread the dolly arms when in position. This will prevent putting dents in the asphalt and flat spots in the tires.

## 5. OPERATIONS COORDINATOR & JUNIORS

### 5.1. Definition and Duties

The OC coordinates all field operation activities and keeps the flight line running safely and efficiently as described in section 4, [Ground Operations](#). The OC is normally found on the grid or at the logging table, ensuring that only the appropriate people are there, and doing their jobs correctly. He dictates the launch and staging order, and in general keeps a lookout for any potential safety issues that might arise. OCs are picked from our more experienced pilots. The OC shall mentor and monitor inexperienced members in proper grid and operational procedures.

The OC ensures that there is a logger on duty at all times of operations.

The Junior's job is principally to run wings and retrieve gliders using our ground tow vehicles. They should report to the OC when they are ready to serve their duty, and the OC will direct them to the task currently needed. The Juniors should be treated with respect for the valuable job they perform, by the same token, they are still young and might need to be reminded as to what is expected of them from time to time. Inexperienced juniors shall be mentored and trained by the OC to ensure grid safety.

To ensure efficient and safe operations, OC and juniors are assigned for each scheduled flying day.

### 5.2. Scheduling

Before the start of the soaring season, the Director of Operations creates an OC schedule, assigning all active and qualified GBSC members OC duty days, excluding instructors, tow pilots, and board members. The Director of Operations also creates the schedule for the tow pilots. The roster is published in the March edition of the Towlines newsletter and is updated, as necessary, in future Towlines and on the GBSC website ([www.soargbsc.com](http://www.soargbsc.com)). Assignments are made for all GBSC scheduled flying days for two or three months at a time.

During February or March, and prior to completion of the roster, a member may contact the Director of Operations and identify any weekend(s) the member is unavailable for OC duty. The Director of Operations can then avoid scheduling members when they are unavailable. After the roster is created, members swap days among themselves to resolve scheduling conflicts. From time to time, GBSC has had problems with OCs failing to show up on their assigned date. To alleviate this problem, the Director of Operations, or his/her designee, notifies the assigned members via website and or in the Towlines. This is to remind members to either show up or to make arrangements with another member to substitute for them. It is the responsibility of the assigned member to make sure their substitute shows up on the proper day. Members can check the [latest operations schedule on the Operations website](#).

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Should the scheduled person fail to show up for assigned duty without a valid reason, and another member volunteers to perform their duty, the volunteer will be credited with one 3k tow at the expense of the member who failed to show up. The member who failed to show up will also be rescheduled and listed to the No-Show list published on the GBSC Ops website.

### **5.3. Pre-flight Line Operations**

Pre-flight line operations consist of the actions necessary to have at least one of the two place gliders ready for flight by 10:00 a.m. on a scheduled flying day.

#### **5.3.1. Duties and Responsibilities**

The OC and assigned MITSA Juniors should be at the field by 0900. The OC is responsible for coordinating the activities listed in [Appendix D](#).

#### **5.3.2. Operations Coordinator**

In addition to those items above, the OC is responsible for the following:

- Overall safety and efficiency of the operation.
- Talk with the scheduled instructor and tow pilot to confirm current weather information; also check with the FBO, if it is open.
- Determine active runway with FBO.
- Start a new flight log sheet (enter date, OC name, Instructor, and tow pilot(s), plus Junior names when they check in)

The [Operations Coordinator's role](#) is described in the Operations Manual.

The first member of the flying day to use one of the other gliders will be responsible to perform the preflight inspection of these gliders.

### **5.4. Flight Line Operations**

Flight line operations consist of the ground activities necessary to launch gliders and have them safely return to the staging area. This includes the following:

- Moving gliders to the staging area
- Control of the sign-up list and launch order list
- Moving gliders to the launch grid
- Control of the grid
- Hook-up and wing running
- Tow rope retrieval (after it is dropped by the tow plane)
- Retrieving gliders that have just landed

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## **5.4.1. Log Sheet**

Members take turns maintaining the signup sheet and the log sheet throughout the day.

If there is not a logger at any time during an operation, the OC will ask a member to fulfill this duty.

Accurate information must be recorded on each and every flight! Logging is critical for keeping accurate records that will be used for glider/towplane usage data, billing, pilot flight times, and other such pertinent information.

### **Basic Logger Instructions:**

- Read the example log sheet and refer to it as you fill in log entries.
- Once the operations have concluded and the log is completed, the OC takes a photo of the completed log sheet and sends it to GBSC Business.
- The OC confirms all pilots have logged their flights correctly on Loggerstation and notify any that have not completed this task.
- Once all members have logged their flights on Loggerstation and all flight confirmed, the OC will “Close out the Day”

## **5.4.2. Operations Coordinator (OC)**

The OC shall:

- Assign the launch order
- Prioritize training flights to keep instructors fully utilized.
- Along with the Logger, monitor the MITSA Juniors and lend assistance when necessary
- Ask for experienced members to assist in hookups, running wings, moving and retrieving GBSC gliders.

***This is a club operation. Everyone is expected to contribute whenever possible.***

### **5.4.2.1. Flight Log**

During each operation, members must keep a legible, accurate and complete flight log of the day's flights. The flight log is crucial for keeping an accurate record of GBSC flights, both for billing and for logging aircraft hours. Log the pilot's complete name, passenger, instructor, 'N' number of the glider, tow pilot, tow plane, and glider takeoff and landing times. See [Appendix C](#) for a sample log and detailed instructions.

**Each member is responsible for entering their flights into LoggerStation.**

## **5.4.3. MITSA Juniors**

The MITSA Juniors will work primarily on the grid with hookups, wing running, tow rope retrieval, moving gliders forward in the grid and helping to move gliders from the staging area to the grid.



## **5.5. Post-Flight Operations**

The members are required to accomplish the duties listed in [Appendix D](#) at the end of the flying day. The OC is responsible for verifying that all tasks have been completed.

*All club members will assist with these tasks. Don't just get in your car and go home!!*

## **5.6. Miscellaneous**

### **5.6.1. New Members**

For existing members, please ensure that new members know the operations around the field. If it is a busy day, find another qualified member to guide them through the field procedures. Before they fly with GBSC, they must speak with and be checked out by a GBSC instructor. Show them how to sign up for a flight with a GBSC instructor.

### **5.6.2. Prospective New Members**

GBSC is always looking for new members, whether they are new to soaring or experienced pilots. Greet them kindly and supply them with the GBSC informational brochure, SSA literature, a copy of *Soaring*, and if a membership form is requested, direct them to the GBSC website [soargbsc.com](http://soargbsc.com) or the membership chairman's email address, [membership@soargbsc.com](mailto:membership@soargbsc.com). Find other members to talk with the prospective member and have them explain in more detail the workings of the club.

All GBSC members are expected to welcome and make prospective members feel comfortable. Do not let new-comers stand around and be ignored or they will go away with bad feelings about the club and soaring. If they wish to take an introductory glider lesson, guide them to the OC or experienced club member to fill out an Introductory Membership Form.

## **6. FLIGHT INSTRUCTORS**

Consistent with GBSC's charter to promote the sport of soaring, GBSC offers instruction to primary and advanced glider pilots. GBSC relies on those club members with Certificated Flight Instructor - Glider (CFIG) ratings, to provide instruction in all disciplines of soaring.

### **6.1. Scheduling**

At the beginning of the year, the Chief Flight Instructor fills out an instructor roster. The instructor roster designates an instructor for each scheduled flying day. It is extremely important that instructors show up on all of their assigned days, or trade the day with another instructor.

On most days, two instructors are required from 11 a.m. to 3 p.m. Since only one instructor is officially scheduled, non-scheduled instructors come out to the field as their time permits.

### **6.2. Assigned Instructor**

The assigned instructor is responsible for providing instruction from 10:00 a.m. until the last flight of the day anytime the conditions are 1000-foot ceiling and 3-mile visibility. The instructor is the final authority for all flight operations, including but not limited to:

- resolving questions of club glider airworthiness
- setting weather-related solo pilot limits in club ships
- approving student solo flights
- approving temporary members

The instructor also organizes and initiates instruction flights to maximize the day, should the OC fail to do so. (She/he gets people moving!) Instructors will endeavor to enter notes about each instructional flight in GBSC's online instruction reporting system.

Unassigned instructors at the field coordinate load-sharing with the assigned instructor on busy days. On slow days, the assigned instructor may choose to do all of the instruction flights since s/he is committed for the day.

### **6.3. First Solos**

Pre-solo exams are issued well in advance of the student being ready to solo. Blank tests are available on the GBSC Web site, and from your instructor. Preferably, the student takes the test at home with any study materials desired. The instructor grades the test and reviews errors with the student. CFR 14 requires instructors to keep completed pre-solo written tests for 3 years after the test).

## **6.4. Consistency of Instruction**

Because students fly with many instructors, efforts must be made to limit contradictory information. An instructor's meeting is held at the beginning of the season to review basic procedures and techniques. In addition, regular dialog at the field promotes consistency of instruction for various lessons and techniques.

### **6.4.1. Altimeter setting**

Students will be instructed that the standard GBSC technique is to set the altimeter to field elevation (460 feet) prior to takeoff.

### **6.4.2. Takeoff checklist**

CB-SIT-CBE (Controls, Ballast, Straps, Instruments, Trim, Canopy, Brakes, Emergency) will be used on instructional flights (same as the textbook, with the addition of E). This and the landing checklist are to be used for verification of settings and actions previously completed. Don't wait until E to plan your flight, including studying the day's conditions and preparation for a rope break. It is desirable to have these checklists posted in the club gliders.

### **6.4.3. Landing checklist**

USTALL (Undercarriage, Speed, Trim, Airbrakes, Lookout for traffic, landing spot)

### **6.4.4. Syllabus**

Students and instructors will use the following books throughout the flight training process: Knauff's training books: Glider Flight Training Manual and Transition to Gliders (for power pilots), as well as the FAA Glider Flying Handbook (faa-h-8083-13)-and CFR 14 /AIM. All pilots are encouraged to expand their soaring library beyond these core texts.

## 7. TOW PILOTS

The GBSC tow pilot roster consists of club members satisfying the appropriate CFR 14 requirements who are willing and able to commit to a schedule. Good tow pilots realize they are a service provider; offering glider pilots timely and safe tows to an area permitting a good soaring flight.

### 7.1. Qualifications

Minimum requirements are: GBSC membership, meeting the appropriate CFR 14 requirements, and approved for duty by the Chief Pilot and Tow Pilot Instructor.

Tow pilots are encouraged to fly club gliders on a regular basis in order to understand and anticipate the needs of the glider pilot.

### 7.2. Scheduling

At the beginning of the year, the Chief Pilot or Director of Operations fills out a tow pilot roster. The tow pilot roster designates a tow pilot for each scheduled flying day. It is extremely important that the assigned tow pilot show up on time for all of his/her scheduled days, or trade the day with another tow pilot. This is vital to running a reliable operation.

**Tow pilots are expected to tow at least one slot a month. Exceptions will be reported to the GBSC Board of Directors.**

### 7.3. Assigned Tow Pilot

Three tow pilot shifts are assigned and scheduled:

- AM shift is 10-2
- Midday shift is 11-3
- PM shift is 2-6.

AM pilots must be ready to tow starting at 10:00 a.m., anytime the conditions are VFR with acceptable winds. The Midday pilot must be ready to tow at 11:00 unless the day is non-soarable in which case the start time is 1:00. The tow plane should be fueled, preflighted, and ready to go by the start times.

The assigned tow pilot is responsible for the tow plane on that day including:

- Preflight inspections
- Oil level
- Cleaning the windows
- Wiping down exterior oil streaks and bugs
- Reporting/logging mechanical problems
- Securing the airplane between tows

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- Post-flight inspection
- Properly tying down the airplane

All other things being equal, because of economy of operation and concerns about noise for the local community, the Pawnee tow planes are the preferred tow planes for normal use.

GBSC's L-19 is an excellent tow plane and quite enjoyable to fly, but should be considered the last aircraft to utilize in normal weekday/weekend operations. Tow pilots should consult the tow plane maintenance coordinator before using the L-19. It is also expensive to maintain. Variations in pilot technique can greatly affect the reliability and condition of the tow plane. Tow pilots are expected to handle and operate the tow plane thoughtfully and with explicit actions taken to minimize wear and tear.

The L-19 should not be flown with the front seat windows open due to the difficulty involved with replacing the window hinges. Flying with back seat windows open is permitted. (The rear seat hinges are different.)

Since GBSC is a soaring oriented club, tow demand tends to come in bursts. That is, even when a second tow plane is available, the tow pilot must be ever vigilant to not "fall behind", as even short delays tend to accumulate, cause congestion, and eventually limit the amount of flying accomplished. On busy days, unassigned tow pilots should offer relief to the assigned tow pilot as their time permits.

The tow pilot remains attentive to the flight line, to be available on demand. Make fuel stops during lulls in the activity, as opposed to waiting for the tanks to get low, and possibly needing to refuel when gliders are ready to launch. During busy times, it is important to maximize the tow rate by climbing in lift, descending in sink, and minimizing ground time; all while being safe and gentle with the airplane.

### **7.4. Speeds**

The Birddog and Pawnee tow planes have a mark on the airspeed indicator that is appropriate for a two-place trainer. Add 5 mph for glass, 10 mph for glass with water and subtract 5 mph for a 1-26 and 2-33. Glider pilots are encouraged to ask for faster or slower speeds as desired. Always talk with the glider pilot and confirm the tow speed in advance when the glider is carrying water ballast.

If the cylinder head temperatures are high, increase the tow speed.

### **7.5. Takeoff**

Standard SSA wing runner signals are used: swinging arm below the waist for removing slack in the rope, and full circular motion for takeoff. In addition, the glider wags its rudder when ready and the tow plane responds with the same signal. Use the radio (122.9) as backup between the glider and the tow plane.

Be aware that many power plane pilots use the mid-field taxiway with no consideration that they are crossing an active grass runway.

## **7.6. Climbing**

Thermaling on tow is a normal and expected procedure in appropriate conditions. Prior to first solo, all students must be able to follow the tow plane in a thermal on tow. For this to be effective, thermals must be fairly large, as aggressive, tight thermaling is usually not productive in significantly improving climb time. The glider pilot is better served flying through more air while straight and level.

## **7.7. Boxing the Wake**

The accepted technique for boxing the wake is for the glider to initially descend through the wake, followed by going clockwise around the wake. This technique allows the tow pilot to differentiate glider steering from the initial portions of boxing the wake.

Alternate, but commonly accepted, wake boxing techniques may be used upon Tow Pilot notification.

## **7.8. Glider Steering**

Tow pilots need to be attentive to attempts by the glider to steer the tow by pulling the tail of the tow plane to the left or right. This is differentiated from the glider boxing the wake because steering is done in the normal high tow position, whereas boxing starts in the low tow position. If the glider initiates a turn, establish a shallow turn in the yawed direction. Wait for the glider to return to the center line before leveling out and establishing a new heading. It is recommended that the glider pilot first contacts the tow pilot via radio before using this maneuver.

## **7.9. Release**

The tow pilot must ensure the glider has released before making any aggressive turns or descents. It would not be the first time a tow pilot started a rapid descent with the glider still attached.

## **7.10. Descent**

While there are as many descent techniques as there are pilots, there is a preferred method for GBSC that attempts to trade off engine shock cooling, timely descents, and aircraft wear and tear. Immediately after verified release:

1. turn left
2. throttle back to 2000 rpm, deploy full flaps (maintain this power setting for at least two minutes), then reduce to 1800 rpm for two minutes, etc.
3. start tracking back to the airport at 80 mph or below for the L-19, 100 mph or below for the Pawnee.
4. spiral down in sink to maximize descent rate
5. set up for entering the landing pattern

The initial slowing/power back/flap deployment is applied simultaneously. It is very important to be slow when deploying the flaps as the load increases dramatically with speed.

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The goal is to get into the pattern and on the ground as directly as possible while maintaining an urgent lookout for all traffic.

### **7.11. Landing**

The tow plane can be landed on the grass or the paved runway. Be aware that the wiring for the runway lights is above ground in many places and may be an obstacle for the tailwheel. Be cautious of the runway lights. Communicate with any landing or departing traffic before crossing the grass runway.

Never fly over gliders on the launch line.

### **7.12. Dropping the Tow Rope**

When landing on 34, the preferred location to drop the rope is along the left side of the displaced threshold, just at the edge of the grass and pavement. This allows a rope retrieve without having to cross the runway and keeps the pavement clear of ropes for departing aircraft. When landing on 16, the preferred location to drop the rope is along the right side of the runway, just at the edge of the grass and pavement. In any event, the tow pilot must be certain that he can drop the tow rope clear of any bystanders and property. If any doubt exists, drop the rope on the far side of the runway.

### **7.13. Parking/Prop Blasts**

Because of the tight operating space, tow pilots must always be aware of the effects of the prop blast on people and objects behind the tow plane. It is unacceptable to blow dirt and dust onto people and equipment. If necessary, move the plane by hand before starting it.

### **7.14. Pattern Tows**

The objective of pattern tows is to position the glider for a release at 1,200 feet AGL, near the IP (not at the IP). Position the glider so that when release height is reached the pilot can see the airport.

### **7.15. Cross-Country Towing**

Special considerations are necessary when towing straight and level, as opposed to climbing. As the power produced by the tow plane is reduced, the superior performance of the tow plane relative to the glider decreases, and with sufficient power reduction, the glider's performance exceeds that of the tow plane. This creates dangerous slack rope conditions as the glider attempts to pass the tow plane!

Given this possible condition, the burden is on the tow pilot to properly change attitude and power. When transitioning from climb to straight and level tow, reduce power gradually (a maximum of 300 feet per minute), and hold the airspeed constant (equal to climb airspeed). The typical technique of adjusting to level flight attitude with a pitch change before reducing power is absolutely incorrect in this case. Once straight and level flight is achieved at the original tow speed, add power to increase airspeed.

Descent under tow is even more problematic; rates greater than 200 FPM are not recommended. The higher the performance of the glider, the more serious the problem.

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When towing cross-country, select a course and altitude to allow the most options for the glider pilot should the rope break or release.

Improper tow pilot technique in cross-country towing can create serious problems for the glider pilot. Tow pilots are encouraged to practice straight and level cruise and descents with an attached glider.

### **7.16. Passengers**

For performance and safety reasons, GBSC policy forbids passengers in the tow plane except for tow pilot instruction and ferrying. Such passengers will only be carried if there are no safety/performance concerns..

### **7.17. Wave-Off**

Normally, the glider pilot releases at his/her discretion, as opposed to being waved off at a specific altitude. If the glider does not release at the expected altitude, continue the tow and inform the Logger of the actual release altitude upon landing.

In the event of a mechanical failure or other problem, wave off the glider and give it the opportunity to release. If the glider fails to release or conditions become sufficiently dangerous, release the glider.

A note on the wave-off signal -- the rocking of the tow plane wings must be done without heading change and with rapid oscillation. There have been cases where the attempted bank angle was too high and the roll rate too slow, such that the glider pilot initially tried to "follow the turn".

### **7.18. Release Failure**

Follow normal SSA procedures in the case of a release failure. Should the glider indicate release failure (moving to the left and rocking the wings), return to the airport before releasing the glider.

In the rare event of a double release failure, the required landing while on tow can be difficult. The key to this procedure is to limit the descent rate as described in the cross-country towing section. The pattern needs to be extremely wide and flat. Obviously, an excessive slack rope condition could be catastrophic. A landing on a long runway, such as Fitchburg or Worcester, may be the best option.

### **7.19. Open Spoilers**

Towing with the glider spoilers open has been a recurring problem in soaring. Depending on specific performance (tow plane, glider, air density) and obstacles, this can easily result in an accident. While the reasons for open spoilers are many, and often difficult to understand in retrospect, the reality is that it continues to happen. If the tow pilot realizes the spoilers are open during tow, his/her options are limited but normally sufficient.

To enhance roll control, some glider pilots choose to deploy spoilers during the initial portion of the takeoff. This is accepted practice and tow pilots should be able to distinguish from unintentional deployment. When the signal to start the tow is given, the glider pilot has the spoilers closed (although maybe not locked), and only opens them as the roll starts; closing them once sufficient airspeed is achieved.



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Except on very hot days, a positive rate of climb should be possible even if the glider's spoilers are open, as long as proper tow speed is maintained. Too slow (due to "trying to climb") can reduce performance and risk a stall, while too fast lowers the glider's performance even more.

If the glider has a radio, alert the glider pilot of the problem. It has also become accepted procedure for the tow pilot to indicate an open spoiler condition to the glider pilot by very rapidly wagging the rudder. This is quite noticeable to the glider pilot and the frequency is high enough that there is no attitude effect on the tow plane. Do not give a rudder waggle signal below 1000 feet.

If the situation continues, fly directly over the airport and wave off the glider. Given the reduced performance of the glider, the tow pilot must give the glider pilot the best chance of reaching the airport after release.

Do not start a tow when the glider's spoilers are deployed unless you are certain the pilot has them open intentionally.

### **7.20. Noise sensitive areas**

Around Sterling are several noise sensitive areas which should be avoided. Consult the operations section on the GSBC Ops Web site for latest status and guidance.

## 8. SHIP CAPTAINS

GBSC is fortunate to have a large fleet of gliders and three tow planes. To keep all GBSC aircraft airworthy, various members are assigned by the Board of Directors as ship captains.

### 8.1. Definition and Duties

The ship captain is responsible for his/her assigned aircraft as well as its trailer and tie-down. This includes:

- Recognizing and performing preventive maintenance needs.
- Recognizing and performing minor repair needs.
- Recognizing and resolving major repairs.
- Maintaining accurate and up-to-date aircraft logs.
- Maintaining the Aircraft Status Board entry (see below).
- Determining maintenance procedures.
- Making sure the annual gets done on time.

The hardest job the ship captain has is getting assistance. Membership should lend a hand when asked, or better yet, offer assistance. Maintaining the aircraft can be part of the fun and enjoyment of belonging to a glider club. It is also good preparation for owning a glider.

### 8.2. Aircraft Status

Refer to the [Glider Fleet Status](#) section of the Operations Manual.

Only the Ship Captains and the Maintenance Director have access to change the information on the status board.

### 8.3. Grounding an Aircraft

Refer to the [Grounding an Aircraft](#) section of the Operations Manual.

### 8.4. Return to Service Flights

At the discretion and approval of the Maintenance Director, ship captains may take up to two return to service flights per season to confirm proper operation of the aircraft after a repair.

The tow plane Return to Service procedure is presented in [Appendix H](#).

## 9. SAFETY

### 9.1. Responsibilities

Safety of the GBSC Members, their guests, visitors to the airport, club gliders/equipment, airport property as well as the safety of non-club members and their aircraft with whom we share the airport is everyone's responsibility.

The rules and procedures outlined above provide a basis for a safe glider operation. The GBSC Safety Officer along with the Safety Committee are responsible for overseeing the operation and implementing changes as needed to maintain a safe flying environment.

### 9.2. Safety Committee

The GBSC Board of Directors shall establish and maintain a Safety Committee that is composed of members, led by a Safety Officer, who is appointed by and reports to the Board of Directors. The Committee, in collaboration with the Chief Pilot, promotes a proactive safety culture through communications and by example. The Committee recommends policies and procedures related to safe flight operations and the safety of other activities that directly support flight operations. The Committee has primary responsibility to investigate and correct issues that threaten safety, including mishaps and non-compliance with safety standards. The Committee's recommendations are subject to concurrence by the Chief Pilot, who is the final authority with respect to issues of flight safety.

The Board shall appoint the Chief Pilot and Chief Instructor to the Safety Committee. Other members shall be appointed by the Safety Officer and Chief Pilot, subject to Board approval. Preference is given to flight instructors and tow pilots, due to their direct involvement in day-to-day flight safety.

The Committee's specific responsibilities include, but are not limited to:

- oversight of the safety of day-to-day flight operations
- communication to the Board of Directors of safety issues that may require Board action
- maintenance of an online Safety Reporting System that is available to all members
- communication of safety issues to the members through the club's weekly newsletter and/or direct communications
- design and conduct of an annual safety briefing
- establishment of Spring checkout requirements
- review of changes to the GBSC Membership Manual that may affect safety

The Safety Committee may, as it sees fit, become involved in safety activities that are not directly related to flight operations. If an activity:

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- is observed and believed by the Committee to immediately threaten the physical or emotional safety of a member or members, in such cases the Committee may intervene with enforcement authority.
- is observed and believed by the Committee to be detrimental to the physical or emotional safety of a member or members, but without immediate threat, in such cases the Committee will communicate its recommendations to members and/or the Board.

The GBSC Board of Directors recognizes the critical role of the Safety Committee, and communicates to GBSC members its support for the Safety Committee's actions and recommendations.

### **9.3. Glider Acquisition by GBSC Members**

In an effort to assist GBSC members in the acquisition of a new glider, or the purchase of a share in an existing glider partnership, the safety committee requests that you contact them personally, or via email, [safety@gbsc.groups.io](mailto:safety@gbsc.groups.io), and provide the type of glider you are considering and your experience level.

The Safety Committee wants to help you select a glider that is within your experience level and ensure you obtain sufficient knowledge of the glider's flight characteristics to fly it safely. The committee will recommend a member or other contact to discuss the glider in detail with you so you are well prepared to make this important purchase decision.

While this policy is primarily for members who are buying their first glider, the committee would also appreciate hearing from more experienced members who are considering purchasing a new glider.

The policy is here to keep you and your new glider in one piece. If you ask members who have recently transitioned to their own glider, you will find some who had challenges in their early flights, and in some cases totaled their glider.

### **9.4. Incident Sharing**

You know the saying; it goes something like this "Experience is the best teacher, but it is better to learn from the experience of others." Every pilot has had a situation they wish they had not gotten into. When you have a problem during your flight, find an instructor and/or a Safety Committee member and discuss it, schedule an instructional flight, and find out how to minimize the chances of it happening again.

If the situation had any impact, or potential impact, on safety, you should always complete a report through the [Safety Reporting System](#) using the online form. You may submit the report anonymously, if you wish.

Situations that had a positive bearing on safety should also be reported; emphasizing good experiences helps promote a strong safety culture. The Safety Committee will share these reports with the members at large. All [GBSC Safety Reports](#) are available to members from the Safety Corner page of the Flight Operations Center website.

Sharing experiences is a critical way to help your fellow pilots learn and stay safe.

## 9.5. Cockpit Checkout

While the need for a cockpit check out and logbook endorsement described above in [Section 3.3.2 "First Flight in Any GBSC glider"](#) is an insurance requirement, it is also a safety issue.

GBSC has a wide variety of club gliders. Some have flight characteristics that you must understand before flying. The [Glider Fleet Status](#) pages provide documents for each of the club gliders, including Flight Characteristic Notes written by members familiar with the glider.

We also urge you to talk to a member who has flown the glider to get additional insight for your first flight.

## **10. CHIEF PILOT**

### **10.1. Responsibilities**

GBSC's Chief Pilot, who is appointed by and reports to the Board of Directors, sets the club's standards for safe, efficient flying, through communications and by example. Further, s/he sets standards for experience, performance, and conduct by the club's instructors and tow pilots. He is the final authority with regard to compliance with club rules, procedures, and CFR 14 as they pertain to flight operations.

The Chief Pilot may serve also as chief flight instructor and/or chief tow pilot, at his/her choosing. Alternatively, the Chief Pilot may appoint a chief CFG and/or chief tow pilot and delegate appropriate responsibilities, with appointments approved by the Board of Directors. In either case, the Chief Pilot will have input with respect to standards in the instructor and tow pilot communities.

The Chief Pilot serves as a key member of the Safety Committee and works with the Safety Committee to promote a proactive safety culture.

He is specifically exempt from responsibility for scheduling unless he elects to take on that job.

# 11. CHIEF INSTRUCTOR

The Chief Instructor is appointed by, and operates under the authority of the Chief Pilot as defined in section 10.1 of the GBSC Membership manual

## 11.1. Responsibilities

### Maintain list of instructors

- Maintain the list of instructors on the student web page
- Know how many instructors are actually available to be scheduled
- Determine duty length (all day, half day, student list sign up, etc.)

### Maintain list of Students

- Use GBSC Database to keep track of number of students
- Maintain a master list of the students with their current progress (Pre-Solo, Solo, Knowledge test past, Preparing for check ride, etc.)

### Set and monitor student progress goals

- Make goals visible to all students.
- Goals such as:
  - Take knowledge test
  - Earn B badge,
  - Set specific targets for solo experience
  - Take pre-solo written test
- Encourage detailed and up-to-date logging of student progress on the instructor logging page

### Schedule annual and periodic instructor meetings

- Stay focused on details of instruction and addressing (any) issues
- Review best practices for individual students (as needed)
- Discuss consistency in various phases of instruction

### Schedule and lead new student orientation

- Make sure a new student member has a face-to-face orientation with a CFI-G
- Create a list of topics to be discussed during face-to-face
  - Create an Instructor's manual and put it on the GBSC Instructor Page Tab)
  - Review instructional program with new students
- Send a welcome email to new students

### Ensure new instructors are given some guidance

- Set up new instructor orientation
- Scheduling new instructors to initially work alongside a seasoned instructor.

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- Identify, encourage and set up mentor for potential new instructors

Ensure instructors are appropriately scheduled

- The Chief Instructor may designate an Instructor to do the scheduling:

Periodically survey GBSC members for suggestions to improve the instructional program

- Based on the results of the survey(s), recommend changes to the instructional program



# APPENDIX A - RATE SHEET

## MEMBER GLIDER RENTAL

### Single-place gliders

Blanik L-33	\$10	per hour
Schleicher ASW 19B	\$20	per hour
Schweizer 1-34	\$10	per hour
Schweizer 1-26	\$10	per hour

### Two-place gliders

Blanik L-23	\$14	per hour
Puchacz SZD 50-3	\$14	per hour
Schleicher ASK 21	\$25	per hour
Schweizer 2-33	\$14	per hour

Rentals are rounded up to the nearest 1/10<sup>th</sup> hour, subject to a 1-hour minimum.

Rentals have a 2-hour maximum.

There is no rental charge for pattern tows and rope breaks.

## MEMBER TOW FEES

\$12.00 hookup fee

\$1.40 per hundred feet AGL; minimum 1200 feet, except rope breaks.

### **Examples**

Practice Rope Break	\$12
Pattern Tow (1200 ft)	\$28.80
2000 ft Tow	\$40
3000 ft Tow	\$54
4000 ft Tow	\$68
5000 ft Tow	\$82

Note: An additional \$5.00 per tow is applied for tows at encampments to cover the additional cost of transporting club equipment.

## NO-CHARGE CFI FLIGHTS

There are no rental or tow fees for CFI Flight Review (BFR) and 90-day currency flights, with a maximum of three currency flights per season.

## VISITING PILOT TOW FEES (does not apply to SSA Region 1 pilots)

Check-out flight with GBSC instructor in GBSC glider at current Intro price, as needed, and fee for GBSC Temporary membership has been paid.

For flights in their own glider, visiting pilots pay a \$60 flat rate for a tow not to exceed 3000 ft. Cash or check payments only.

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### **SSA REGION 1 MEMBER PILOT TOW FEES**

Check-out in club equipment at the current GBSC Member rate, as needed.

Tow Fee- GBSC Member rate for requested tow. Cash or check payments only.

### **RETRIEVE RATES:**

\$3.00 per radial Mile from Sterling, \$40.00 minimum

There is no retrieval fee for a pilot's very first land out.

Note: Aerotow retrieves are only done from an airport.

### **CREDITS:**

Instructors receive a \$6.00 dollar credit per Instructional flight, including FAST flights.

Tow pilots receive a \$2.50 dollar credit per tow. Tow Only members receive no credit.

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### GBSC MEMBERSHIP PLANS

#### MEMBERSHIP FEES:

Membership Type	Initiation Fee	Annual Dues
Regular member	\$500	\$600
Instructors and Tow Pilots	\$250	\$600
Family member	\$250	\$400
Student member	\$250	\$400
Junior member	N/A	\$ 60
Tow Only member	N/A	N/A
90-Day Trial Membership	(see <a href="#">Appendix F1</a> )	

#### **Initiation Fees**

New members pay half of the Initiation Fee upon application and half the next January. The Initiation Fee is waived for active military personnel.

#### **Annual Dues**

Annual dues are paid as follows:

- Junior: billed in full in January
- All other: \$35/month January through October plus
  - Regular: \$250 in January
  - Family and Student: \$50 in January
- New members pay prorated dues upon application (see table below).
- New Junior members pay their full dues upon joining.

#### **Prorated Dues**

		50% Initiation plus Prorated Dues Paid upon Application			
Join Month	Rate	Regular	Instructor or Tow Pilot	Family or Student	Junior
January	100%	\$535	\$ 410	\$210	\$60
February	100%	\$570	\$ 445	\$245	
March	100%	\$605	\$ 480	\$280	
April	100%	\$640	\$ 515	\$315	
May	100%	\$675	\$ 550	\$350	
June	100%	\$710	\$ 585	\$385	
July	85%	\$670	\$ 545	\$375	
August	75%	\$650	\$ 525	\$375	
September	50%	\$535	\$ 410	\$310	
October	35%	\$460	\$ 335	\$265	
All prorated amounts rounded to the nearest \$5					

# ***GBSC Membership Manual***

## **90-Day Membership**

See [Appendix F1](#).

## **SSA Membership**

All members of the club other than 1-day members (such as Guests and Intros) MUST be members of the Soaring Society of America. Refer to the SSA website [www.ssa.org/](http://www.ssa.org/) for current rates and online application instructions.

## **Family Membership**

Only members of a Regular Member's immediate family are eligible for Family Membership.

## **Student Membership**

Student members must be in full-time education through Undergraduate status.

## **Junior Membership**

Juniors are credited with the equivalent of a 3k tow in a two-place ship (but not the ASK 21) for every 5 hours worked on the airfield. At current rates, this works out to \$13.60 per hour. Junior Credits may only be used for the cost of dues or flights. All credits expire at the end of the calendar year in which the Junior is no longer eligible for Junior Membership.

## **Temporary Membership**

\$15.00 for 1 day; entitles temporary members to tow in private ships at the Visiting Pilot rate. Does not include use of club gliders. Maximum of five per calendar year. Must be an SSA member. This does not apply to local New England pilots from clubs with which there is a reciprocal membership agreement.

## **Merchandise**

A variety of soaring books and merchandise is available from the club. Please refer to the rate sheet posted in the FBO.



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APPENDIX C – FLIGHT LOGGING

**C.1 Example Log Sheet, Side 1 of 2**

SFO MandelbaumJ		GBSC Flight Log		Day Saturday			Sheet 1		Blank = 3.0
Logger KelleyG				Date 10-22-08			Of 1		
	Tow Customer	Intro? Blank if No	Instructor or Passenger	Glider	Tow Plane	Tow Pilot	Time (24 Hr Format)		Tow Height
							Launch	Land	
1	HallRC		BourgeoisR	65852	Z	MP	10:15	10:35	2.8
2	KoepperM			MK	P	RG	10:40	18:30	1.8
3	FlatonE		GaisfordP	373BB	Z	MP	11:25	12:45	1.2
4	RoelkeR			RR	P	RG	11:29	16:40	2.3
5	DoeJane	X	HamvasD	65852	Z	MP	11:45	12:15	
6	HoltzhausenH		KruegerK	118BB	P	RG	11:55	12:21	
7	<h1>Example</h1> <p>Rev: 2008-01-28</p>								
8									
9									
10									
11									
12									
13	FlatonK		VerhulstT	373BB	Z	MP	13:55	14:30	0.4
14	HoltzhausenH		KruegerK	118BB	P	RH	14:30	15:30	
15	CherkusD			1156	Z	JW	15:15	16:30	
16	BliedenI			A1	Z	MP	13:55		2.9
17	JacobA		ClarkGloria	118BB	P	RH	14:30	15:30	2.8
18	CherkusD			1156	Z	JW	15:15	16:30	
19	PitoniakM			4B	P	RH	15:30	17:00	
20	JonesRider	X	HamvasD	373BB	Z	JW	15:48	16:30	
21	BoydB			76PS	P	RH	15:38	16:34	
22	DimeoF		KruegerK	TA	Z	JW	16:08	18:00	
23	Martha Kobus		JR HRS				9:00	17:00	
24	Max Flaton		JR HRS				9:30	15:00	
25									
26									
27	BliedenI		Retrieve Gardner		Z	JW		18:25	
28									
29									
30									
31									
32									
33									
34									
List tow pilots and their initials here:			Mike Pitoniak - MP	Bob Fletcher - BF					
			Richard Gammon - RG	Ritts Howard - RH			John Wren - JW		

## C.2 Example Log Sheet, Side 2 of 2

Gliders:

### **Two Seat:**

N17899	Schweizer 2-33 Yellow
N373BA	Blanik L-23 Silver
N607OU	Puchacz White
N421GB	Schleicher ASK 21

### **Single Seat:**

N33917	Schweizer 1-26 Silver
N1156S	Schweizer 1-34 Yellow
N9814A	ASW 19B
N289BA	Blanik L-33

### **Tow Plane Field**

Enter B, 6P or 9P

B	5673B Cessna L-19 Birddog
6P	9716P Piper Pawnee
9P	9809P Piper Pawnee

## C.3 GBSC Flight Logging Procedures

### General instructions

Write neatly so the data can be read. That means write the required information in simple block letters and don't attempt to stuff in irrelevant data. If you make a significant mistake, draw a line through the row and start on a new row. Don't add unnecessary information such as BFR or check ride. Don't write a "k" in the tow height column. Flight order on the sheet makes no difference because launch and land times are recorded. Don't draw arrows or notes that one flight was before another. If a note will clarify things by all means, write one on the back of the form where there is plenty of room or if necessary add another sheet. Use the line numbers to indicate a particular flight your note pertains to.

### All fields are mandatory.

Fill in all fields. If you miss an event do your best to track down the correct information and provide an estimate. Your guess on the day will be better than a guess days later.

#### Exceptions

1. Tow Height. Leave it blank if you think the tow was three thousand feet or if you don't know. Empty tow height fields are billed as three thousand feet.
2. Junior Hours. Fill in Tow Customer, Launch and Land. Write JR HOURS in the Instructor / Passenger field. Leave all other fields blank.
3. Aero Retrieves. Launch and tow height fields should be empty.

### OC, Day of Week, Date, Sheet n of m

Enter names, day and date. Indicate how many total sheets cover the operation. For example, Sheet 1 of 2.

### Tow Customer

This is the member who will be billed for the tow. **This must be a member on the billing list!** The only exception is for pre-paid flights (intro / visiting private pilot) see **Intro Field** below.

Members will thank you for confirming the paying party and filling this out legibly. If members want to split costs ask them to please work it out separate from club billing. If a member insists on being billed for a flight for which he is not in the glider then put him down in the Tow Customer field and write a note on the back of the log sheet indicating who is in the glider on that flight. But again, ask first if he can work it out without club involvement.

### Intro Field

In the case of Intro flights or tows by visiting private owners the Tow Customer field may contain a person who is not on the billing list. The corresponding form must accompany the logs sheet for the day.

- Enter the person's name in the Tow Customer field
- Check the Intro field
- Find the Intro or Visiting Private Glider form. Confirm the flight has been paid for in advance.



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Enter glider, takeoff and landing times on the intro form to match it to this logged flight.

## **Instructor or Passenger**

This is the person in a two-place glider who is not the Tow Customer.

## **Glider Field**

Enter the complete registration number (you don't need to include the leading N) or contest number of the glider. Club gliders and tow planes are listed on the back of the example log sheet. If it is a private ship, use the contest number (the big 2- or 3-digit numbers or letters on the fin, or the wing) or "N" number.

## **Tow Height**

Don't write a "k" after the number. If you think the tow height is three thousand feet or you don't know then leave the field blank. The Tow Customer will be billed for a three thousand foot tow. If you know the tow height and it is not three thousand feet then enter it in decimal thousands of feet to the nearest one hundred. For example:

300	=	0.3
1200	=	1.2
2700	=	2.7
3000	=	3.0

## **Tow Plane Field**

Enter B, 6P or 9P

B	5673B	Cessna L-19 Birddog
6P	9716P	Piper Pawnee
9P	9809P	Piper Pawnee

## **Tow Pilot Field**

Enter an abbreviation for the tow pilot. JO for Jeff Orchard etc. Please, as you add abbreviations for tow pilots, add a legend at the bottom of the form. I.e. JO = Jeff Orchard and so on.

## **Launch / Land Fields**

Log the takeoff time and landing time of all GBSC gliders in 24hr format (example 11:30 = 11:30 and 2:45 = 14.:45). It is important to log the landing time for private ships to be sure of their return. If for some reason you miss the landing time of a ship, attempt to find out an approximate one, and log that, barring that, when you have confirmed that they have safely returned (or are being retrieved) you can note that they are confirmed down.

## **Junior Hours**

Don't draw borders around junior data. Enter the junior's name in the Tow Customer field. Write JR HRS in the Instructor / Passenger field. Enter start time in Launch field and finish time in Land field. Leave all

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other fields blank. If you leave your duty and come back then log a separate entry for each time period served.

### **Aero Retrieves**

Write "retrieve <airport name>" in the Instructor / Passenger field or write a note on the back of the log sheet. Launch and tow height fields should be empty.

### **Non-Billable Flights**

Instructor currency flights and some rare cases such as news media events may not be billable. In this case, write a note on the back of the log sheet indicating the line number of the flights.

# APPENDIX D - CHECKLIST FOR OCs

## Pre-flight Line Operations

### TASKS FOR SET-UP VOLUNTEERS AND MITSA JUNIORS

- Arrive at the field by 9:00 a.m.
- Open the Green shed & Battery room
- Carefully open the GBSC hanger door following posted instructions.
- Set up the worktable by the picnic bench on 16 and near the Green Shed on 34.
- Locate the Logger clipboard, pens, club brochures (these should be in the Battery Room).
- Set up the launch order list.
- Set up the GBSC sign on the grass near the road (Only if using runway 34). The sign is in the Green Shed.
- Get a tow rope out for the day. Inspect for knots, weak spots, length, and proper ring connections etc. Repair or replace inadequate tow ropes. Set them up next to the launch grid (tow ropes are in the green shed).
- Get the Aviation handheld radios, club cell phone, and walkie-talkies from the battery room attached to the FBO building.
- Get the carts from the hangar. (The keys for the carts are in the battery room ) Top off gas and oil as necessary. Instructions for operating the carts are on a placard.
- Preflight a two-place glider.
- Tow the glider to the secondary staging area.

## Post-flight Line Operations

### TASKS FOR END-OF-DAY VOLUNTEERS AND REMAINING MITSAs JUNIORS

- Make sure all the tow planes and all the gliders are securely tied down. Lock all control surfaces in place with aileron/rudder locks and by immobilizing the stick with bungee cords or harness straps. High winds can severely damage unsecured control surfaces..
- Remove all the batteries from the gliders and place them on charge in the battery room attached to the FBO.
- Remove any ballast from the glider and store its proper location.
- Make sure all the glider canopies are secured and covered if a cover exists.
- If a canopy cover is used, cushions are to remain in the glider and the vent window left open.
- Re-coil the tow lines, re-inspect them as you go. Hang them on the pegs in the Green Shed.
- Put all carts away in the hanger. Be sure all carts are off, and electric ones are charging.
- Check the flight log and make sure that every flight is logged. Take a photo of the log sheet(s) and email to the GBSC Business list.
- Ensure all gliders (especially private ships) that took off are accounted for (i.e. landed). Attempt to contact any gliders still in the air on 122.9 and 123.3. Check the field phone for any messages (perhaps the glider landed out).
- In the event of an emergency, see [Emergency & Incident Reporting](#) and follow Emergency Procedures
- Stow the unused pens, log sheets, etc., in the Battery Room.
- Clean up around the Green Shed: store the worktable, and sign in the shed; remove the trash.
- Stow lawn chairs.
- Stow the sign
- Close and lock the green shed and battery room.
- Close and secure the GBSC hanger door.
- Close & lock the GBSC hanger entry door.

# APPENDIX E - RADIO USAGE

## E.1 General

Most club gliders, as well as the tow planes, are equipped with two-way radios operating in the VHF aeronautical radio frequency band. Radios in the gliders are powered by rechargeable (i.e., storage) batteries. Typical uses are:

- position reports
- condition reports
- traffic alerts
- "bring the club glider back" requests
- along with more general soaring communications such as saying hello to a friend 100 miles away or pointing out landing areas to a flying companion.

The radios in use are half duplex on a single frequency. This means:

- the radio transmits and receives on the same frequency
- the radio cannot transmit and receive simultaneously
- only one radio in the area can transmit at a time
- you cannot hear messages while transmitting
- you must listen on the frequency before transmitting to ensure that no one else is transmitting

## E.2 Frequencies

The frequencies of 123.3 and 123.5 MHz are assigned to flight schools and glider operations. The soaring community uses 123.3 and 123.5 for glider to glider as well as glider to ground communication. 123.5 is used when 123.3 is too busy. 123.3 is also used as the "company" frequency for various FBOs and flight operations.

If a contest is operating on one of the frequencies, use the other one as there are probably a lot of ground transmissions you cannot hear which you will "step on". (Contests are indicated by the calling out of many contest numbers with no other information being transmitted.)

### E.2.1 Common Traffic Advisory Frequency

Airports without a control tower, (magenta colored airport symbols on the sectional), utilize a Common Traffic Advisory Frequency (CTAF) on which all traffic, landing or taking off, broadcast their intentions.

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No replies are expected on this frequency. The goal is that all aircraft operating in the area will hear these broadcasts and be aware of the traffic. The CTAF frequency is charted on the sectional. The Sterling CTAF is 122.9.

### **E.2.2 Air to Air**

The only FAA/FCC supported frequency for air to air communication is 122.75. This frequency is typically unusable due to non-stop chatter between power pilots. It is a good frequency to use if you need to have a long conversation.

### **E.2.3 Emergencies**

121.5 is a dedicated emergency frequency. Do not transmit on 121.5 unless there is an emergency. Preface your transmission with "MAYDAY, MAYDAY, MAYDAY." 121.5 is monitored by commercial aircraft and airports.

## **E.3 Usage**

### **E.3.1 Phraseology**

Normal aircraft radio identification is via the aircraft registration number. When communicating with Air Traffic Control (ATC), use your full registration number, preceded by "glider". For example, say "Glider seven six PAPA SIERRA," to identify a glider with the registration N76PS. Note that the initial "N" is implied and not spoken. When speaking letters of the alphabet, such as a glider registration number, use the phonetic alphabet.

Once communication is established with ATC, the last three characters of the registration are usually sufficient. Glider to glider communications usually use the contest numbers or the last two characters of the registration.

When initiating communication, first state the entity trying to be reached, followed by your identification number.

GLIDER: *Nashua tower, glider one three zero charlie alpha.*

### **E.3.2 Frequency Congestion**

The message capacity of a frequency is really quite limited. It is not unusual for the frequency to be full, i.e., almost continuous transmissions. A full frequency not only limits your ability to use the radio for your needs but is very annoying to listen to. While there may be a strong urge to turn off the radio to avoid the chatter, a better solution is fewer transmissions.

The range of a glider radio at a few thousand feet off the ground is approximately 150 miles! This means many gliders are sharing the frequency and everything said is heard by a lot of people.

Conversely, when transmitting on or low to the ground, it is not possible to receive (hear) all the traffic on the frequency. The frequency may sound quiet, when in reality, gliders in the air may be receiving many transmissions. Therefore, keep ground transmissions to a minimum.

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### **E.3.3 Takeoff and Landing**

The CTAF is used to broadcast landing and takeoff intentions and positions. The tow plane usually handles the takeoff transmissions. However, prior to takeoff, the glider pilot may want to tell the tow pilot to "take up slack" and "ready for takeoff".

GLIDER: *Bird-dog, glider four one sierra, take up slack.*

TOW PLANE: (may or may not acknowledge, but takes up slack)

GLIDER: *Bird-dog, glider four one sierra, ready for takeoff.*

TOW PLANE: *Sterling traffic, Bird-dog with glider in tow rolling on runway 34.*

After releasing from the tow plane, glider pilots may also inform the tow pilot they have released:

GLIDER: *Bird-dog, glider four one sierra, off and clear.*

Listen to the frequency a minute or two before entering the pattern to determine the current traffic situation. Enter the pattern at the proper place and time. Do not hesitate to cut inside power traffic, if their patterns are too wide for you to follow.

GLIDER: *Sterling traffic, glider seven six papa sierra entering left crosswind runway three four Sterling.*

GLIDER: *Sterling traffic, glider seven six papa sierra turning final runway three four Sterling.*

It is also good practice when operating in the vicinity of an airport, to monitor other traffic and periodically announce your position:

GLIDER: *Fitchburg traffic, glider seven six papa sierra circling at two thousand feet, one-half mile north of runway three two Fitchburg .*

Be aware that not all traffic in the pattern will have a radio. Be aware that many airports share the same CTAF frequency.

Note: Before exiting the cockpit, turn off the radio and any other electronics. The club member(s) tying down the glider at the end of the day turns off the electronics, turns off the master switch, and removes the battery and puts it on a charger in the battery shack.

### **E.3.4 Operating Procedures for Controlled Areas**

There is not much need to talk to Air Traffic Control (ATC) from our gliders. Those areas where it might be necessary are when entering Class D Airspace (such as Nashua) or entering Class C Airspace (such as Manchester). When operating near the GDM VOR above 6,000 ft, advising Boston Center on 123.75 is recommended.

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### **E.3.4.1 Class D Airspace**

Prior to entering Class D Airspace, call the tower and state position and intentions. They will permit scratching (at a reasonable altitude) as long as they are kept informed. If a landing is imminent, let the tower know.

GLIDER 130CA: *Nashua tower, glider one three zero charlie alpha.*

NASHUA TOWER: *glider one three zero charlie alpha, Nashua tower.*

GLIDER 130CA: *one three zero charlie alpha is three miles west descending into your airspace, heading southeast, searching for lift.*

NASHUA TOWER: *glider zero charlie alpha, roger, report any change in your intentions.*

GLIDER 130CA: *zero charlie alpha, will keep you informed.*

### **E.3.4.2 Class C Airspace**

Entering Class C Airspace requires two-way radio communication and a transponder. Without a transponder, permission to fly through Class C Airspace is unlikely. Call approach and ask. If they are not busy, they may permit entry. The tower frequency is on the sectional, in the blue boxes outside the Class C Airspace circle.

GLIDER 130CA: *Manchester Approach, glider one three zero charlie alpha, one two miles southwest at four thousand two hundred, heading northeast negative transponder.*

While there are some Federal Regulations taken more seriously than others, flying in Class C Airspace without permission is one not to be taken lightly.

## **E.3.5 Position Reports**

Position reports are perhaps the most common usage of 123.3. Unfortunately, it can be one of the most frustrating exchanges due to inaccurate or vague responses. When two gliders are trying to locate each other, very accurate and specific position reports are needed. Nothing consumes more airtime and irritates others on the frequency more than a continuous exchange of: "where are you", "I'm right here", "I don't see you". If you are trying to join with another glider address that glider by call sign and then provide your position. This indicates your desire to join and provides the other glider needed information without adding additional radio calls.

Position reports should consist of a bearing and a distance from a charted landmark, along with altitude to the nearest 100 feet, such as:

GLIDER 1A: *Bravo one, one alpha, 5 miles northeast of Lakewood at six point three.*

GLIDER B1: *Bravo one is three miles northeast of Lakewood at five point six*

Poor position reports:

GLIDER B1: *ah...er... I'm near Milford*

GLIDER B1: *just north of the lake*

GLIDER B1: *under this big cloud*



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Probably the most common error in position reports is actually realizing your true position. At 5000 feet AGL, it does not take much angle to be several miles off, which will make a rendezvous very difficult. Unless you are in a steep circle, if you can see it, you aren't there! Look straight down. As for judging distance, Sterling airport is 9 statute miles from Fitchburg airport. Next time you fly, get a feel for how it looks from different altitudes.

### **E.3.6 Traffic Alerts**

When flying closely with other gliders, there are two types of traffic alerts that are sometimes useful - power traffic, and close soaring traffic. It's usually better to use a direction rather than a "clock" position unless the two gliders are flying straight and level together.

GLIDER B1: *One Alpha, jet traffic, one mile west, level*

In the case of two sailplanes flying together where pull-ups and thermal entries cause the two planes to keep coming within a couple hundred yards of each other, very brief messages are used, usually without call signs because you recognize each other's voice.

GLIDER B1: turning right

# APPENDIX F – GBSC MINOR PROTECTION POLICY

## Introduction

Child abuse can occur in any organization where adults interact with young people. Abuse may take on a number of forms: physical, verbal, sexual, emotional, and neglect. GBSC's policy establishes a code-of-conduct that spells out the boundaries of members' allowed behavior when interacting with minors.

## Definitions

- Child or minor: For purposes of this policy, a “child” or “minor” is defined as a person less than 18 years of age.
- Communications: verbal, textual, or visual/graphical, whether conveyed in person or through electronic means
- Inappropriate communications: language that
  - includes swearing, sexual content or innuendo, violent content, or similar suggestive language
  - would not be appropriate to share with a minor's parent
  - would not be appropriate for publication

“Parent” should be taken to mean “parent or legal guardian” throughout.

## Key Policy Objectives

- Protect the minor from potential abuse by adults
- Protect the adult from false allegations
- Minimize legal liability risk to GBSC

## Roles

The following roles report to the Board of Directors (the “Board”):

- Youth Coordinators: A position of multiple “Youth Coordinators” will be created to provide to minor members, individuals to whom they will feel comfortable reporting or discussing situations that trouble them, in order to create a supportive environment.
- Minor Protection Facilitator: A position of “Minor Protection Facilitator” who serves as the person to whom a) adults report violations of the code-of-conduct, and b) who then communicates those violations to the Board.

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## **Code-of-Conduct**

- No minor may ride in a car driven by an adult without another adult in the vehicle, unless the minor's parent has given explicit permission. The only exception is a ride directly from one part of the airfield to another.
- No inappropriate communications with anyone should be made within earshot of a minor. Even if the minor uses inappropriate language themselves, this is not an excuse for adults to use it.
- All interactions between an adult and a minor must be in a public environment, where others are nearby, and within view.
- No one-to-one electronic communications of any kind may be made between an adult and a minor, except for instructor/student communications strictly on instructional matters. Any other electronic communications must include the minor's parent or another adult club member.
- No inappropriate touching of a minor.
- Adults shall explain and seek permission from a minor before helping to secure belts and shoulder harnesses (as this will involve some incidental touching that could be misinterpreted). If the minor is a female, if at all possible, seek assistance from another female to secure the minor's belts/harnesses.
- Instructors and other adult members shall treat the minor the same way as an adult would be treated. No minor may be berated or subjected to humiliating comments.
- At the end of the operations day, the OC is responsible for assuring that there is no minor waiting for a ride. If there is no OC, the adult member who is taking responsibility for securing the operation will assume this responsibility.
  - If a minor has not been picked up at the end of the day, a parent will be contacted, and the OC will wait at the airport until the parent ride arrives.
  - If a parent cannot be reached, a local GBSC member will be contacted, and that minor will be given a ride home with two or more GBSC adult members providing the transportation.
  - In the absence of being able to do this, the local police department should be contacted to pick up the minor, and take her or him to the police station until the parent is able to retrieve the minor.

## **Incident Reporting by Youth Members**

- Any uncomfortable situation should be reported by the minor member affected to a youth coordinator.
- When a situation is reported by the minor member, the youth coordinators will confer among themselves as to an appropriate response or the next step.
- Among the youth coordinators, no one person will make a decision concerning an incident.
- Two or more youth coordinators, at their discretion, may speak to the adult who was reported regarding an isolated incident or situation, as long as the incident was not deemed serious or criminal.
- Any serious incident or situation, or repeated incidents or situations or any sort, must be reported immediately to the Board. Police should be called by the youth coordinators, if appropriate.
- With respect to peer-to-peer incidents, youth members will be encouraged to report incidents that make them feel uncomfortable.

## **Incident Reporting by Adults**

- Adult club members who become aware of a violation of the code of conduct must report that incident to the minor protection facilitator.

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- The minor protection facilitator will communicate with the Board as to the next step.

### **Confidentiality**

Events or occurrences involving violation of this policy will be kept confidential except for informing parents, police, or where appropriate the individuals involved.

### **Consequences / Actions by the Board**

Upon any report of a violation of the code-of-conduct or similar problem, the Board will confer among its members as to the next step. As appropriate:

- The Board will secure the advice of legal counsel
- The Board will utilize a graduated policy of increased discipline, where appropriate, beginning with a verbal warning, progressing through written warning, and potentially expulsion from the club
- In serious cases of reported abuse or endangerment of a minor, the parents of the minor involved and the police will be notified immediately

# APPENDIX F1 – 90 DAY TRIAL MEMBERSHIP

## Eligibility

- Anyone meeting the GBSC requirements for regular membership who has not been a regular member of GBSC in the past.
- Must be a member of the SSA.

## Restrictions

- Individuals are limited to 1 trial membership. Sequential or yearly trial memberships are not permitted.
- Temporary members do not have voting privileges
- Temporary members will not be required to perform OC duty but may request, and are encouraged, to do so
- Temporary members may not serve on the BOD
- This membership expires 90 days from the date the application was accepted. At this time, it may be converted to a regular membership or their participation in GBSC flying ends for the remainder of the season.
- Application of a portion of a previously taken Intro/FAST flight to membership dues cannot be applied to a trial membership. It will be applied if the individual either converts to or subsequently becomes a regular member.

## Fee structure

The cost of the 3-month membership is \$250 and does not require an initiation fee. The \$250 membership dues must be submitted along with an additional \$250 which will be credited to their account, against which flight time will be deducted. Trial members will receive a monthly statement showing their current balance. Trial members must maintain a positive balance of at least \$100 and will be billed accordingly. Accounts in arrears are subject to the same 'no-fly' limits as regular members. The \$250 dues paid for this membership is non-refundable but unused funds held on account towards flight time will be either transferred if the trial membership is converted to a regular membership or refunded at the end of the trial period.

## Conversion to Regular membership

At the completion of the trial membership or at any time during that 90-Day period, a temporary membership can be converted to a regular membership using the normal application process. The amount submitted (dues plus initiation fee) with the application is the amount shown in the table on the application form for the month in which the trial application was accepted (not the month it is

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being submitted). Dues paid during the temporary membership will be credited to the regular member's account as will any cost differentials resulting from a prior intro/FAST flight.

### Deferred regular membership

If an individual chooses to defer becoming a regular member until the following (or later) season at the completion of the trial membership period, he would just follow the normal application process. None of the dues paid during the temporary membership will be applied to this regular membership. The standard intro/FAST flight adjustment does apply.

## **APPENDIX F2 – EMERITUS MEMBERSHIP**

### **Purpose**

To provide a means for GBSC to formally honor a deserving inactive member for their many years of dedicated service to the club.

### **Eligibility**

In order to be considered for this honor, an individual must currently be an inactive member of GBSC and prior to becoming inactive, must have been an active member for at least 20 years. This is total years of active membership and not necessarily continuous.

The candidate has been recognized, by the BOD or the membership at large, as having made significant contributions to the club during their active membership. These contributions go well beyond what one would expect from a member who is a regular club participant.

Significant contributions to GBSC include, but are not limited to the following:

- Generous monetary support either via loans or donations, that were used to either stabilize the club's financial position or assist with the acquisition/maintenance of equipment for the general health and welfare of the club
- Selflessly giving of their time and energy to ensure the continued operation of the club such as, serving multiple terms as a Board Member, Officer, Committee Chair, Tow Pilot, or Instructor.

### **Nominations**

Any active member may submit, in writing, to the BOD the name or names of those inactive members they feel deserve consideration for this honor. The BOD will review all the nominations received and select a recipient by a majority vote held during an executive session of the Board. All nominations must include the contributions made by the nominee and must be received by Feb 1 for the year in which the award will be presented. There is no limit to the number of names placed in nomination. Names submitted but not selected may be carried over for consideration the following, or subsequent, years. There is no need to resubmit a name.

There will be only one Member Emeritus awarded each year.

If the situation arises where the BOD has two equally deserving candidates in a given year and is unable to select one over the other, the BOD has the discretion to induct two that year.

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## **Annual Award Presentation**

Each year that there is an individual to be inducted into the Emeritus Member category, the GBSC President will make a formal presentation of a Certificate of Appreciation (or plaque) to that year's recipient at the annual meeting.

## **Emeritus Member Privileges and Limitations**

Emeritus Members of GBSC retain this honor for life.

Emeritus members are not 'active' members of GBSC and cannot represent GBSC in any official capacity. They do not pay dues nor do they have voting privileges but may attend club meetings. They cannot be assigned club duties but may offer assistance on a voluntary basis. They are not required to retain their membership in the SSA. Their names will be retained on our roster as emeritus members and they can decide what other information is published there. They will also be added to Logger Station for accounting purposes.

Emeritus members cannot act as PIC while using club equipment

Emeritus members are entitled to seven (7) flights in one of our 2 place gliders, with a tow height of 3000 ft AGL, per calendar year at no cost. Unused flights cannot be carried over to the next year. The monetary equivalent of the seven flights (currently \$434) will be credited to their account at the beginning of the calendar year and any flights taken will be charged against this account. The funds credited to the account are for accounting purposes only and do not have any actual cash value. If the emeritus member wants to take additional dual flights beyond the seven complementary ones, he may do so and will be billed at the current member rate. A monthly statement will be provided. The PIC for these flights must be a current GBSC active member in good standing and the flight must adhere to the 1-hour time limit unless there is no demand for either the glider or pilot.

Emeritus members have the same access to the club gliders and instructors as regular members. They can place their name on the sign-up sheet and request their glider preference and if they want to fly with an instructor (this would guarantee that they get to fly even if other qualified members aren't available). They fly when they are next up on the list, just like any other member. They do not have priority over other members nor can they be bumped by other members (as can be the case with Intro flights). This is valid for both complimentary flights and flights that they are paying for.



# APPENDIX G - BY-LAWS

## BYLAWS OF GREATER BOSTON SOARING CLUB, INC.

### ARTICLE I

#### Articles of Organization

The name of the corporation, the purposes for which it is established, and the nature of the business to be transacted by it, shall be as set forth in the Articles of Organization, as from time to time amended. The powers of the Corporation, Greater Boston Soaring Club, Inc. (hereinafter called the "Club") and of its directors, officers, and members, and all matters concerning the conduct and regulation of the business of the Club, shall be subject to such provisions in regard thereto, if any, as are set forth in such Articles of Organization, and such Articles of Organization are hereby made a part of these Bylaws.

### ARTICLE II

#### Membership

1. Classes. There shall be the following classes of membership of the Club: regular, family, junior and private. Other classes of membership and degrees of association may be created by majority vote of the Board of Directors.

2. Qualifications. New members may be admitted to the Club upon the affirmative vote of two thirds (2/3rds) of the Board of Directors, who in determining membership shall not discriminate on the basis of sex, race, color, religion or ethnic or national background. A person admitted into membership shall be deemed an active member upon payment of the initiation fee and other charges as determined by the Board of Directors.

3. Active Members. Active members shall be those members who have paid all fees and charges assessed by the Club. Active members shall be entitled to participate in all activities of the Club and to utilize all property of the Club, subject to the provisions of these Bylaws and regulations of the Club. An inactive member shall return to active status upon payment of all appropriate fees and charges.<sup>12</sup>

4. Regular Membership. Regular members shall be those members of age of at least eighteen (18) years and so designated by payment of the fees and charges established by the Board of Directors. Each active regular member shall be entitled to one vote on each matter submitted to a vote of the members.

5. Family Membership. Family members shall be members who are dependents of regular members. Fees for family members shall be such proportions of the fees for regular members as is determined by the Board of Directors. Each active family member who is of age of at least eighteen (18) years shall be entitled to one vote on each matter submitted to a vote of the members and shall be entitled to participate in all other activities of the Club.

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6. Private Members. Private members are owners of sailplanes who pay fees equal to such proportion of the fees of a regular member as is determined by the Board of Directors. Each active private member shall be entitled to one vote on each matter submitted to a vote of the members and shall be entitled to participate in activities of the Club as provided in the regulations of the Club.

7. Junior Members. Junior members are members under the age of eighteen (18) years. Fees for junior members shall be such proportions of the fees for regular members as is determined by the Board of Directors. A junior member shall not be entitled to vote on matters submitted to the vote of the members.

Upon reaching the age of eighteen (18) years, a junior member shall acquire the status of a regular member upon payment of such initiation fees as are established by the Board of Directors; provided, however, that a junior member who is also a dependent of an active regular member shall be a family member and may become a regular member upon reaching the age of eighteen (18) years without the payment of an additional initiation fee.

8. MITSA Junior Membership – See bylaws.

9. Term of Membership. The term of active membership shall be one (1) year and coincide with the fiscal year of the Club unless otherwise determined by the Board of Directors.

10. Proxies. Voting by proxy may be permitted under such conditions as prescribed by the Board of Directors.

11. Expulsion. The Board of Directors, by affirmative vote of two thirds (2/3rds) of all the members of the Board, may suspend or expel a member for cause. Any member may resign by filing a written resignation with the Secretary of the Club.

## **ARTICLE III**

### **Meetings of the Members**

1. Annual Meeting. The annual meeting of the members shall be in March each year at a time and place to be determined by the Board of Directors.

2. Special Meetings. A special meeting of the members may be called by the President of the Club, a majority of the Board of Directors or by written petition of at least three voting members of the Club. Upon such written petition it shall be the duty of the Clerk to call the meeting of the members within ten (10) days after receipt of such petition.

3. Notice. Written notice of the annual meeting of the members shall be sent to the members not less than fourteen (14) days before the date of such meeting and by or at the direction of the President or the Clerk. Written notice of special meetings shall be sent to the members not less than seven (7) days before the date of such meeting, by or at the direction of the President or the Clerk. The purpose or purposes for which a meeting of the members is called shall be stated in the notice.

4. Quorum. A majority of the voting members of the Club, by proxy or actual presence, shall constitute a quorum at meetings of the members.

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## **ARTICLE IV**

### **Board of Directors**

1. Duties and Powers. The business of the Club shall be managed by its board of Directors, which may exercise all of such powers of the Club and do all such lawful acts and things as are allowed by statute, by the Articles of Organization and by the Bylaws; provided however, that the Board of Directors shall not commit the Club to major financial transactions, except such transactions which are essential for preserving the safety of the Club's members or maintaining the Club's financial condition, without the approval of a majority of the voting members of the Club.

2. Structure. The Board of Directors shall consist of seven (7) members, which shall include the President, Clerk and Treasurer.

3. Selection and Term. The voting members shall elect the Directors. The term of office of a Director shall be one (1) year.

4. Removal. Any member or members of the Board of Directors may be removed for cause at any time by the affirmative vote of two thirds (2/3rds) of the Board of Directors.

5. Vacancies. Vacancies arising for any reason may be filled by a majority vote of the Board, and the Directors so chosen shall hold such positions on the Board until the end of the term of the Directors they replace or until their successors are duly elected.

6. Resignations. Any member of the Board of Directors may resign at any time; such resignation shall be made in writing and shall take effect at the time specified therein, and, if no time be specified, at the time of its receipt by the President or clerk. The acceptance of a resignation by the Board of Directors shall not be necessary to make it effective.

7. Meetings. The annual meeting of the Board of Directors shall be held immediately after the annual meeting of the members of the Club. Additional regular meetings shall be held periodically as the Board shall schedule. Special meetings of the Board may be held from time to time upon the call of the President or upon a request in writing by any three members of the Board of Directors. Written notice of such special meeting shall be mailed to each Director, setting forth the time, place and purpose of the meeting no less than five (5) days prior to the date affixed. Special meetings may also be held at such times as the full Board may from time to time determine, and, if so determined, no notice thereof need be given.

8. Quorum. At all meetings of the Board of Directors, four (4) members of the Board shall constitute a quorum for the transaction of business, and the act of a majority of the members present at any meeting at which there is a quorum shall be the act of the Board of Directors, except as may be otherwise specifically provided by statute or by the Articles of Organization. If a quorum shall not be present at any meeting of the Board of Directors, the members present may adjourn the meeting by announcement.

9. Voting. At all meetings of the Board of Directors, each member of the Board shall have one vote.

10. Committees. At his or her discretion the President may appoint committees of the Board of Directors, with such powers as the President may determine.

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11. Compensation. Each member of the Board of Directors shall serve without compensation or reward, except for legitimate expenses incurred in the course of his or her duties or as otherwise provided in the Bylaws.

12. Interest of Directors. No member of the Board of Directors shall have an interest, directly or indirectly, in any transaction of the Club, unless such transaction is approved by the vote of the Board of Directors, from which vote the interested Directors shall abstain, after full disclosure of such interests by the interested Directors. The presence of the interested Directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors.

13. Records. The Board of Directors shall cause to be kept a complete record of all its acts and proceedings and shall present a full statement on the condition of the affairs of the Club at meetings of the members of the Club.

## **ARTICLE V**

### **Officers**

1. Number and Term. The officers of the Club shall be a President, Treasurer, Clerk, Chief Pilot, Maintenance Officer, Director of Operations , and such other officers, as the Board of Directors deems necessary and appropriate. The President, Clerk and Treasurer shall be elected by members of the Club and shall serve for a term of one (1) year. The President, Clerk and treasurer shall also serve as members of the Board of Directors. Other officers shall be chosen by the Board of Directors and shall serve for a term of one (1) year.

2. Removal and Vacancy. The President, Treasurer and Clerk may be removed at any time by an affirmative vote of two thirds (2/3rds) of the members of the Club or by the affirmative vote of five (5) members of the Board of Directors. Other officers may be removed at any time by a majority vote of the Board of Directors. Vacancies in offices shall be filled by the Board of Directors at its next meeting.

3. Compensation. No officer shall receive compensation or any form of monetary benefit for his or her time and effort other than reimbursement of expenses incurred in carrying out his or her duties as an officer.

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### 4. Duties of Officers. The duties and powers of the officers shall be as follows:

A. President. The President shall be the chief executive officer of the Club and shall have general supervision and direction of the affairs and management of the Club, preside at all meetings of the members of the Board of Directors of the Club, appoint members of committees and serve as an ex officio member with the right to vote on all committees of the Board of Directors. He or she may sign with the Clerk or any other appointed officer of the Club, any deeds, mortgages, bonds, contracts, or other instruments which the Board of Directors of the Club has authorized to be executed, except in the case where the signing and execution thereof shall be expressly delegated by the Board of Directors, these Bylaws or by statute to some other officer or agent of the Club, and shall have such other powers and duties as from time to time may be assigned by the Board of Directors of the Club. He or she shall make a report at the annual meeting of the members of the Club.

B. Clerk. The Clerk shall prepare such reports as directed by the Board of Directors of the Club and keep a record of the proceedings of the meetings of members and the Board of Directors of the Club, see that all notices are fully given in accordance with the provisions of the Bylaws or as required by law, be custodian of the Club's books and records and, in general, perform all duties incumbent to the office of Clerk, and have such other powers and duties as from time to time may be assigned by the President or the Board of Directors of the Club. The Clerk shall act as agent for service of legal process upon the Club unless he or she resides outside the Commonwealth of Massachusetts, in which case the President shall designate another member of the Board of Directors, who is a resident of the Commonwealth of Massachusetts, as agent for service of legal process on the Club.

C. Treasurer. The Treasurer shall have custody of all funds of the Club, receive all monies and deposit them in a depository selected by the Board of Directors in such separate accounts as may be deemed necessary by the Board of Directors. He or she shall deposit in such separate accounts an amount or amounts of money authorized by the Board of Directors as working fund accounts which shall be available for payment by check, signed by the Treasurer or such other person as authorized by the Board of Directors. Expenditures from other accounts shall be made only upon authorization by the Board of Directors and by check signed by the Treasurer or such other person as authorized by the Board of Directors. The Treasurer shall submit an annual report of the financial condition of the Club based on the preceding fiscal year of the Club at the annual meeting of the members. He or she shall also be prepared to report on the financial condition of the Club at any other meetings of the members or the Board of Directors. The Treasurer shall perform all the duties incident to the office of Treasurer and such other duties as from time to time may be assigned by the President or the Board of Directors of the Club.

D. Chief Pilot, Maintenance Officer and Director of Operations. The Chief Pilot, Maintenance Officer and Director of Operations shall have such powers and duties, as the Board of Directors shall determine.

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## **ARTICLE VI**

### **Finances**

1. The Board of Directors shall establish a schedule of fees that shall be sufficient to pay the Club expenses and to maintain the value of the Club's assets.
2. Any member who has failed to pay his or her dues or any sum owed to the Club within thirty (30) days after billing may be suspended automatically from the use and operation of all Club equipment.
3. If a member fails to pay any sum owed to the Club for more than sixty (60) days, the Treasurer shall submit a statement of the amount owed, and if such sum is not promptly paid, he or she shall be deemed to have withdrawn from active membership status unless appropriate arrangements have been made with the Board of Directors.
4. Withdrawing from active status of the Club shall not extinguish obligations for sums owed to the Club.
5. The fiscal year of the Club shall begin on the first day of January and end on the thirty-first day of the following December.
6. Before the first day of March of each year, a special auditing committee of two members appointed by the Board of Directors shall audit the books of the Club. The Board of Directors in its discretion may cause an independent audit to be made.

## **ARTICLE VII**

### **Execution of Instruments**

When necessary for, or expedient to, the conduct of any phase of the business of the Club, the Board of Directors may authorize an agent, officer or employee of the Club to negotiate and execute on behalf of the Club any specified contract, conveyance, agreement or other instrument. Such contracts, conveyances, agreements or other instruments, executed by the agent, shall become acts of the Board of Directors when signed by the President and the Clerk or Treasurer.

## **ARTICLE VIII**

### **Indemnification of Officers and Directors**

The Club shall indemnify and hold harmless each person who is now or shall hereafter serve as an officer or Director of the Club, from and against any and all claims and liability, whether the same are settled or proceed to judgment, to which such person shall have become subject by reason of his or her having heretofore or hereafter been an officer or Director of the Club, or by reason of any action alleged to have heretofore or hereafter been taken or omitted by him or her as such officer or Director, and shall reimburse each such person for all legal and other expenses (including the cost of settlement) reasonably incurred by him or her in connection with any such claim, liability, suit, action

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or proceeding; provided, however, that no such person shall be indemnified against, or be reimbursed for, any claims, liabilities, costs or expenses incurred in connection with any claim or liability, or threat or prospect thereof, based upon or arising out of his or her own willful misconduct.

The rights accruing to any person under the provisions of this Article shall not exclude any other right to which that person may be lawfully entitled, nor shall anything herein contained restrict the right of the Club to indemnify or reimburse such a person in any case even though not specifically herein provided for.

### **ARTICLE IX**

#### **Parliamentary Authority**

Robert's Rules of Order Revised shall constitute the ruling authority in all cases in which they are not inconsistent with these Bylaws or with any statute of the state.

### **ARTICLE X**

#### **Notice and Waiver of Notice**

Whenever a notice is required by these Bylaws to be given, personal notice is not meant unless expressly so stated, and any notice so required shall be deemed to be sufficient if given by depositing the same in the United States mail, postage prepaid, addressed to the person entitled thereto at his or her address as it appears on the records of the corporation, and such notice shall be deemed to have been given on the day of such mailing. Whenever any notice whatever is required to be given under the provisions of the Articles of Organization or the Bylaws, a waiver thereof in writing signed by the person or persons entitled to said notice, either before or after the time stated therein, shall be deemed equivalent thereto. Attendance by a Director at a Board of Directors' meeting, without protesting the lack of notice prior to the meeting or at the commencement thereof, shall be deemed the equivalent of a written waiver of such notice.

### **ARTICLE XI**

#### **Amendments**

These Bylaws may be amended by the vote of two thirds (2/3rds) of the voting members of the Club present at any meeting, provided that notice of the proposed amendment is contained in the written notice of the meeting, and provided that a copy of the proposed amendment is sent with the notice.

### **ARTICLE XII**

#### **Dissolution**

The Club may be dissolved by the affirmative vote of a majority of the voting members of the Club in accordance with Massachusetts General Laws Annotated Chapter 180, Section 11, or any amendment thereto or supplement thereof, and the Articles of Organization.

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## **ARTICLE XIII**

### **Liability**

1. Liability Insurance. The Club shall carry adequate liability insurance to protect the Club and its members against suits by third parties or members of the Club.

2. Uninsured Liability. Each operation of any aircraft owned or operated by the Club shall be conducted at the risk of the member under whose control the aircraft is assigned, insofar as responsibility for damage resulting from operation of said aircraft is concerned. If the activity causing such damage involves violations of regulations of the Federal Aviation Administration by the member responsible for the damage, said member may be liable for the entire uninsured non-reimbursable cost of the accident. If no such violation is involved, the responsible member shall be assessed for the uninsured, non-reimbursable cost up to a maximum of \$200.00; remaining costs shall be borne by the Club.

ADOPTED: March 8, 1985

## **ARTICLE XIV**

### **Personal Liability**

No director, and/or officer of the Corporation shall have any personal liability to the Corporation or its members for monetary damages for breach of fiduciary duty as a director, an officer, or both, except with respect to:

- (1) Any breach of the director's or officer's duty of loyalty to the corporation or its members.
- (2) Acts or omissions that are not in good faith or that involve intentional misconduct or a knowing violation of law.
- (3) Any transaction from which the director or officer derived an improper personal benefit..



# APPENDIX H – TOW PLANE RETURN TO SERVICE PROCEDURES

Servicing an aircraft, no matter how minor, involves some level of post-maintenance risk. The more complex the servicing and the more components involved, the greater the risk. Too often in GA, those risks culminate in a bad result.

This section presents guidelines for post maintenance RTS procedures. The objective is to provide a final verification of the completeness and correctness of performed maintenance.

Prior to any post-maintenance flight, the following steps should be taken under authority of the Ship Captain and/or Chief of Maintenance. Depending upon the extent and complexity of the Repair, the ground inspection procedure can be short and sweet, but the procedure must nonetheless be completed before any flight.

The intent is that the pilot who is performing the RTS procedure will review the performed maintenance and make sure that the aircraft has been returned to flight ready condition. Not all of the listed items are appropriate for every airplane. Use the items appropriate for the aircraft in question.

## **Review:**

Consult with Ship Captain to discuss history and nature of performed maintenance.

Review with the AP/IA what maintenance was completed. Are there any deferred maintenance items?

What is the plan to address deferred maintenance items?

Review the logbooks for proper endorsements. Airframe, Engine, Propeller

Complete an extensive post maintenance preflight of the aircraft. Primary concern is anywhere you know or suspect the mechanic has been. Check for tools left behind, all safety wire is in place, all nuts/bolts are either self-locking or nylock nuts (B-nuts), castle nut with cotter pin, or safety wire through a bolt head. All inspection panels are in place and secure.

## **External:**

Remove all control locks, walk around looking for the obvious.

## **Cockpit:**

Magnetos and Master switches: Off.

Oil change due sticker: Updated

Control Stick: Cotter pin in all bolts.

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Visible control cables: No apparent movement of cable through the swages.

All visible flight control pulleys have free motion and cotter pins.

Flight controls: Free and correct. Includes checking Flap control and locking mechanism.

Seat belt attach points: Secure.

Seat: Secure and movable. All four legs should engage the rails on the floor. The seat may operate normally but then in flight show a rocking motion as one or more of the legs (wheels) did not properly engage the rail. Seat rail lock in place to prevent seat from detaching from rail.

Rudder pedals: Free motion, correct rudder displacement, no noise from rudder return springs, brake application appears firm. Top of brake cylinders appear cleaned and may have fresh fluid on top. No apparent leaks around the flexible brake lines in the cockpit.

### **Engine:**

Check attachment of all sparks plug wires to plugs.

Check attachment of all cooling baffles.

Check safety wire on oil filter. No apparent oil leaks.

Magneto appears secure, spark plug wires on back of magneto are secure.

Carburetor controls: check cotter pin or safety wire on throttle, mixture, carb heat. Flashlight may be needed, mirrors and looking up through the bottom cowling on the Pawnee. Carb heat control is on the airbox.

Fuel sump drain, fuel filter: Secure.

Oil quantity: Checked.

Security of all hoses; oil, fuel, air. Should be zip tied or Adel clamp to prevent motion or vibration.

Check tension on generator/alternator belt and tension nut is safetied.

Check all cowling attach fittings.

Check all propellor spinner attachments. Propellor may have been removed but spinner will not allow checking that propellor bolts have safety wire.

Check air induction filter.

### **External:**

All external inspection panels are in place and secure.

Main Tires: properly inflated, secure, cotter pin through axle.

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Brakes: Pad visible, safety wire through bolt heads.

Brake hydraulic line: Not wet from fluid, not twisted, secure to gear leg.

Wing struts and bracing secure.

Fuel tank: Filler lid secure, rubber seal secure and pliable, fuel sump checked.

Wingtip lights, tail light operational. Landing lights?

Horizontal tail: bracing secure, elevator and rudder hinge cotter pin or locking mechanism on bolts, visible area of control cables checked, secure.

Tailwheel: inflation, lubrication, cotter pin, rudder control arm chains to tailwheel. With safety links to rudder cable.

### **Start Engine:**

Warm up, check oil pressure and temperature. Shut down and check for fluid leaks around the engine. Restart

Complete taxi checks. If new brake pads, break in new brakes.

Complete engine runup, magneto, carb heat checks.

If you feel it is needed, a full "Static Power" check could be completed.

### **If you feel the aircraft is ready for RTS, take a test flight.**

#### **Flight Testing**

Flight testing should be performed by a qualified pilot with a considered plan that evaluates the safe and general use of the aircraft. If not familiar with any items below, please seek training.

Any work involving flight controls, flaps etc. Detailed preflight on range of motion, deflection stop limits, smooth control movement and in the correct direction. Thumb to up aileron, etc. If flight controls were removed, a flight may be required to determine that flight controls are "in trim", no hands-off rolling tendency in level flight from an aileron or flap deflection. Check that any trim control such as pitch trim moves in the correct direction.

Any work involving liquids such as an oil change should require an engine start, monitor oil pressure to rise and stabilize, then shut down and perform visual fluids leak check. Oil hoses, sump drain, and oil filter area are prime areas of concern.

Any work with brakes, brake pads or hydraulic servicing: Manually hold brake pressure and have someone attempt to push/move the aircraft. Check for hydraulic leaks around brake piston/calipers, brake lines and at the master cylinder. If no motion, proceed with engine start and standard taxi brake checks. Taxi to a safe area with no obstruction in front or behind the aircraft and complete a standard engine runup magneto check. New brake pads need to be "broken in and set" and may not hold an aircraft at full Static Power. If new pads, complete a break in procedure before first takeoff.

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Until braking availability is known, any landing and taxi should be planned as if the brakes were INOP.

Any work involving magneto removal, replacement or setting of timing. A Static Power run up check should be completed before first takeoff. Engine should be sufficiently warmed before applying full power.

If all appears well and PIC deems the aircraft airworthy after maintenance. Then a safe flight home. Normal safety dictates a circling climb over the departure airport to cruise altitude before departing towards home.

Major engine work, such as entire engine was removed and replaced or even cylinder replacement, a landing back at departure/maintenance airport for another engine compartment check before departing for home.