



# MSC OPERATIONS GUIDE

*The MSC Operations Guide is updated periodically. The current master version of the document is available online at [mnsoaringclub.com](http://mnsoaringclub.com).*

*MSC members are responsible for ensuring that the copy they are viewing is the current version.*

<b>Part 1: Flight Regulations</b>	<b>5</b>
A. Flying Authorization	5
B. Flying Qualifications	5
1. Membership Requirements	5
2. Compliance with Rules & Regulations	5
3. Safe to Fly	5
4. Sailplane Authorizations	5
5. Student Solo Flight	6
6. Cross-Country Flight	6
7. Check Rides	7
8. Annual Safety Quiz & Safety Meeting	7
9. First Flight with an Instructor (FFWAI)	7
10. Qualification Cards	7
C. Flight Restrictions	7
1. Use of Club Equipment	7
2. Flight Privileges	8
3. MSC Tow Plane	8
4. One-Hour Limit	8
5. Aerobatics	8
6. Clouds, Instrument Flight	8
7. Cross-Country Flights in MSC Sailplanes	8
8. FAA Regulations	9
9. Operating Limitations	9
10. Aircraft Not Owned by MSC or MSC Members	9
11. Instructor Endorsement	9
12. Thermaling in the Pattern	9
<b>Part 2: Inspection and Maintenance</b>	<b>10</b>
A. Field Operation Officer (FOO) Responsibilities	10
B. Director of Equipment Responsibilities	10
C. Equipment Malfunctions	10
<b>Part 3: Operations</b>	<b>11</b>
A. Ground Operations	11
1. FOO Required	11
2. Handling Sailplanes, Driving Carts	11
3. Wing Runners & Signalers	12
4. Wing Walkers with Wind	12
5. Securing the Sailplane	12
6. Runway Selection	12
7. Retrieving	12
8. Hangaring	12
9. Suspending an Operation	13
B. Handling Canopies	13
1. General Canopy Guidelines	13
2. Canopy Guidelines for the ASK 21 and ASK 21 B	13
C. Weights and Ballast	14

<i>D. Flight Reports</i>	15
1. Logging Daily Flights	15
2. In the Event of an Accident or Incident	15
3. In the Event of a Landout	15
4. Regulation Violation	15
5. Aircraft Malfunction	15
<i>E. Flying Preference</i>	15
1. Priority Preference List	15
2. Family Members	16
3. Passengers	16
4. Badge and Cross-Country Flights	16
5. Instruction	17
6. Click n' Glide	17
7. FOO's Discretion	18
8. Guest Pilots	18
9. Demonstration Rides	18
<i>F. Field Flight Patterns</i>	20
1. Standard Landing Pattern	20
2. Landing Pattern Airspace	21
3. Pattern Tows	22
<i>G. Launch Signals and Procedures</i>	23
<i>H. Airborne Signals</i>	25
1. Airborne Signals in Normal Flight	25
2. Airborne Signals for Abnormal Conditions or Emergencies	25
<i>I. Emergency Procedures</i>	27
1. Immediate Release Signal	27
2. Tow Plane Not Visible	27
3. Sailplane Cannot Release	27
4. Neither Sailplane Nor Tow Plane Can Release	27
5. Aborted Takeoff Roll	28
6. Tow Plane Engine Problem	28
7. Tow plane Engine Failure	28
<b>Part 4: Field Operation Officer (FOO) Guide</b>	<b>29</b>
<i>A. About FOOing</i>	29
<i>B. Appointment</i>	29
<i>C. Obligation to Serve as FOO</i>	29
<i>D. FOO Procedures and Practices</i>	30
1. Preparing Yourself	30
2. Planning and Communicating	30
3. Consulting Airfield Management	31
4. Preparing for the Operation	31
5. Staging	32
6. Preflight Briefing	33
7. Coordinating the Operation	33
8. Placeholder	36

<b>Part 5: MSC Emergency Plan</b>	<b>37</b>
A. Relationship with Stanton Airport Emergency Operations Plan	37
B. MSC Emergency Response for an Accident or Serious Incident at Stanton Airfield	37
1. Call 911	37
2. Render Aid	37
3. Notify Stanton Personnel	38
4. Contact MSC Pilots Aloft	38
5. Provide Appropriate Assistance	38
6. Stop the Operation	38
7. Notify MSC Club Leaders	39
8. Report an Accident or Incident Involving MSC Aircraft	39
9. What Not to Do	39
C. MSC Emergency Response for a Sailplane Accident or Serious Incident Away from Stanton Airfield	40
1. Call 911	40
2. Render Aid	40
3. Establish Communications Command Post	40
4. Notify MSC Club Leaders	41
5. Report an Accident or Incident Involving MSC Aircraft or Member-owned Aircraft	41
6. What Not to Do	41
<b>Part 6: Tow Pilot Guide</b>	<b>42</b>
A. Introduction	42
B. Tow Pilot Eligibility	42
1. FAA Towing Requirements	42
2. Tow Pilot Experience Requirements	43
3. Check Out	43
C. Tow Procedure	43
1. Takeoff and Tow	43
2. Tow Patterns	43
3. Airspeed, Turns and Such	44
4. Glider Release	44
5. Landing	44
6. Wind Considerations & Concerns	44
7. Glider Retrieves	45
8. At the End of the Day	45
<b>Appendix</b>	<b>46</b>
A. MSC History	46
B. MSC Aircraft History	47
C. FOO Checklist	48
D. ACE Camp Roles and Responsibilities	53
E. Operations Guide Change Log	54

## **Part 1: Flight Regulations**

### **A. Flying Authorization**

The Board of Directors determines the regulations regarding the use of club equipment, flight training, cross-country flight, and related activities.

The Director of Operations is responsible for flight activities as authorized by the Board. The responsibility for conducting a specific flight operation is delegated by the Director of Operations to a Field Operation Officer (FOO) assigned for the day.

MSC instructors and the Director of Operations have wide discretion with respect to authorizing members to fly MSC sailplanes. They may authorize members who do not meet the exact letter of the following guidelines, or they may withhold authorization from members who otherwise meet the guidelines.

### **B. Flying Qualifications**

To qualify for flight privileges a person must be a member who is authorized to fly a particular sailplane and to make the type of flight planned (e.g., student solo, pilot in command, cross-country, back seat). To verify such authorization, each member must carry an MSC flight qualification card.

#### **1. Membership Requirements**

Only members in good standing will be permitted to fly club sailplanes. Membership classes which include flight privileges are specified in the bylaws. Financial obligations to the club must be current, as specified by the bylaws.

#### **2. Compliance with Rules & Regulations**

Members are responsible for being familiar with current FAA and MSC regulations. Members must comply with all applicable regulations, including airport rules and recommended procedures.

#### **3. Safe to Fly**

Members are responsible for ensuring that they are physically and mentally safe to fly.

#### **4. Sailplane Authorizations**

To fly an MSC sailplane, a member must be checked out in that sailplane by an MSC instructor. Additional authorization must be obtained to act as pilot in command (PIC) from the rear seat of a two-place sailplane, or to make a cross-country flight in an MSC sailplane.

## **5. Student Solo Flight**

Student pilots must have a current endorsement from an MSC instructor to fly solo. To comply with insurance requirements, an instructor must be present on the field to observe each launch by a solo student. To fly the Junior, solo students must have had incipient spin training during the current soaring season. Students must get a new endorsement at the beginning of the soaring season, and every 90 days thereafter.

A solo student may fly a club sailplane during an ad hoc operation only if there is a FOO on duty. See Part 3, Section A: Ground Operations / FOO Required.

## **6. Cross-Country Flight**

MSC members who wish to fly a club sailplane cross-country must first participate in cross-country flight training and earn the Soaring Society of America's A, B, C and Bronze badges. The training is intended to reduce the risk of an off-field landing—and to reduce the risk of injury or damage to aircraft in the event of an off-field landing.

The Bronze Badge requirements include the following:

- Completion of the Soaring Safety Foundation's ABC training program (C Badge earned).
- Logging 15 solo hours and 30 solo flights in gliders, with 2 flights of at least 2 hours duration.
- Making 3 solo spot landings observed by an instructor.
- Making 2 simulated off-field landings (altimeter covered) with an instructor.
- Passing the Bronze Badge written exam (and then reviewing with an instructor the topics relevant to each incorrect response).

Members must also learn how to rig and de-rig the sailplane.

A signoff by an MSC instructor on the member's Qualification Card documents that the member is qualified to fly a specific club sailplane cross-country.

Student pilots are not permitted to fly cross-country in club sailplanes.

Other requirements for flying cross-country in an MSC sailplane are defined in Part 1, Section C: Flight Restrictions / Cross-Country Flights in MSC Sailplanes.

## **7. Check Rides**

An MSC instructor or the Director of Operations may at any time require that a member take a check ride with an instructor before flying an MSC sailplane. Check rides are strongly recommended for members who have not made a solo flight within the preceding 90 days.

## **8. Annual Safety Quiz & Safety Meeting**

Every soaring season, members must complete a safety quiz prepared by MSC instructors, and participate in a review of the quiz and safety-related topics at the annual Safety Meeting, generally held in March. Members who miss the mandatory Safety Meeting can arrange a make-up session with an instructor.

## **9. First Flight with an Instructor (FFWAI)**

Every soaring season, each member must take a first flight with an instructor, in order to be approved to fly club sailplanes or to be launched in a privately owned glider by the club tow plane. Typically the “FFWAI” would happen at the beginning of the soaring season.

## **10. Qualification Cards**

MSC instructors issue to each member a flight qualification card that lists different authorizations (solo, cross-country, rear seat) for flying each MSC sailplane. The card also has checkoff boxes for the safety lecture/brief, last flight review, and FFWAI. An MSC instructor will initial the card for each authorization that has been achieved, typically at the annual Safety meeting, or later on the field.

Each Spring new cards will be distributed to all members. It is the responsibility of each member to present the blank card to an MSC instructor and seek re-authorization. A current flight qualification card, properly initialed, is the only valid evidence of authorization. The Field Operation Officer is responsible for ensuring that members fly MSC sailplanes only as authorized.

## **C. Flight Restrictions**

### **1. Use of Club Equipment**

No member may use club equipment for hire, or rent club equipment to any person or organization.

Except during MSC operations (scheduled or ad hoc), members may not launch a club ship behind a non-MSC tow plane unless approved in advance by the Director of Operations.

## **2. Flight Privileges**

A member who is not currently authorized to fly an MSC sailplane cannot act as pilot in command, and can fly in a club sailplane only with an MSC instructor or with a member who does have current flight privileges.

## **3. MSC Tow Plane**

An MSC tow plane can be flown only by qualified MSC tow pilots. The tow pilot is to be the only occupant of the tow plane during tow, unless the flight with a passenger is specifically authorized by the Chief Tow Pilot or the Director of Operations for purposes such as training or checking out new tow pilots. (This is not an issue for the Pawnee.)

## **4. One-Hour Limit**

Flights in MSC sailplanes during regularly scheduled soaring operations (weekends and some holidays) are not to exceed one hour unless approved by the Field Operation Officer. Flights in MSC sailplanes are restricted to the local area around the MSC Soaring Site (i.e., Stanton Airfield) except for properly authorized cross-country flights.

## **5. Aerobatics**

Flight maneuvers that would require parachutes to be worn (per CFR § 91.307) are prohibited, except as authorized by the Director of Operations or an MSC instructor. However, spins, stalls, incipient spins, zero-G flight and wingovers are typical parts of the training curriculum.

Members are cautioned to stay at least 4 nautical miles away from the center line of a Federal airway when performing an intentional maneuver involving an abrupt change in attitude, an abnormal attitude, or abnormal acceleration, that is not necessary for normal flight (per CFR § 91.303).

## **6. Clouds, Instrument Flight**

Instrument flying and cloud penetration are prohibited. Note that MSC sailplanes are not properly equipped for such flights.

## **7. Cross-Country Flights in MSC Sailplanes**

The general qualifications for flying cross-country in an MSC sailplane are defined in Part 1 / B (Flying Qualifications) / Cross-Country Flight.

A cross-country flight in one of the club's two-place sailplanes is permitted with specific authorization by the Director of Operations or the Chief Flight Instructor, typically for a cross-country camp or a soaring event at another airfield.



A cross-country flight in the Junior during scheduled soaring operations (weekends, some holidays and weekday training events) is permitted if the pilot has made prior arrangements with the scheduled FOO to reserve the Junior for the flight. The FOO must advise club members in advance (via email and Click n' Glide) that the Junior has been reserved for that time period.

A cross-country flight in the Junior during an ad hoc weekday operation is permitted if the conditions specified in Part 3 / A (Ground Operations) / 1 (FOO Required) are satisfied.

Before making a cross-country flight in any MSC sailplane, the member must recruit a retrieve crew and make the sailplane's trailer ready for retrieval.

## **8. FAA Regulations**

Members are responsible for being familiar with current FAA regulations. Members must comply with all applicable regulations. The Board of Directors can take appropriate action, including suspension of flight privileges, for a violation of an FAA regulation.

Be especially careful about violating the 6000' MSL floor of the MSP Class-B airspace, which is as close as 2 statute miles from the airfield. Pilots can violate the 6000' floor by getting off tow in a strong thermal and not being attentive to their location.

## **9. Operating Limitations**

The pilot in command of a club sailplane must comply with the provisions of the flight manual or pilot operating handbook for that sailplane. Note that there are significant differences between the flight manuals for the ASK 21 and ASK 21 B, despite the similarity of the aircraft.

## **10. Aircraft Not Owned by MSC or MSC Members**

Sailplanes not owned by MSC or an MSC member can be towed by an MSC tow plane only if each launch is authorized by the FOO, who is responsible for ensuring that the sailplane pilot is an SSA member. The pilot's SSA number is to be recorded on the flight log.

## **11. Instructor Endorsement**

An endorsement by an MSC instructor is required before a member is allowed to fly an MSC sailplane, whether the member holds a private pilot license or a student pilot license.

## **12. Thermaling in the Pattern**

Thermaling after entering the pattern is prohibited. Other restrictions on thermaling adjacent to the airfield may apply; see "Landing Pattern Airspace Restrictions".

## **Part 2: Inspection and Maintenance**

### **A. Field Operation Officer (FOO) Responsibilities**

The FOO is responsible for ensuring that a satisfactory inspection of the tow rope and attachments has been completed prior to a soaring operation.

The FOO or an MSC instructor may ground any aircraft deemed to be unsuitable for flight.

### **B. Director of Equipment Responsibilities**

The Director of Equipment is responsible for inspecting and maintaining all club equipment.

### **C. Equipment Malfunctions**

Members must immediately report any equipment malfunction to the FOO or the duty flight instructor. If the FOO or flight instructor is unavailable, the member must note the deficiency in the glider's daily log book and on a placard placed in the aircraft, and then contact the Director of Equipment by the most expeditious means available.

A malfunction or other problem with any club aircraft that renders it unsafe for flight must be reported as soon as possible. A "Do Not Fly" placard must immediately be posted on the instrument panel of the aircraft.

## **Part 3: Operations**

### **A. Ground Operations**

#### **1. FOO Required**

In general, a FOO must be present and will be responsible whenever club aircraft or equipment is removed from the hangar, during each flight operation, and when aircraft or equipment is being stowed. However, the FOO may delegate any of these activities to a FOO-qualified member, who then assumes responsibility.

There are two exceptions to the above requirement:

- A member who is a licensed glider pilot can fly a club ship during an ad hoc operation with no FOO present if the member has pre-arranged for competent assistance retrieving the glider promptly after landing and (unless there is someone waiting to fly the ship) safely stowing it in the hangar. If the pilot is not FOO-qualified, then at least one assistant on the ground must be FOO-qualified. If the pilot is FOO-qualified, then the assistant(s) on the ground need not be FOO-qualified, but must have had enough experience to competently retrieve gliders and move them in and out of the hangar. While two competent members can safely move gliders in and out the hangar, three would be preferable.
- During a scheduled operation, with the FOO's prior consent, a member who is a licensed glider pilot may land a club ship after the day's operation has ended, when the FOO will no longer be on the field, if the pilot has pre-arranged for competent assistance retrieving the glider promptly after landing and safely stowing it in the hangar. If the pilot is not FOO-qualified, then at least one assistant on the ground must be FOO-qualified. If the pilot is FOO-qualified, then the assistant(s) on the ground need not be FOO-qualified, but must have had enough experience to competently retrieve gliders and move them in and out of the hangar. While two competent members can safely move gliders in and out the hangar, three would be preferable.

A solo student may fly a club sailplane during an ad hoc operation only if there is a FOO on duty. An instructor must be present on the field to observe the takeoff.

A FOO need not be present when members are flying their own gliders during an ad hoc weekday operation. The pilots are collectively responsible for reporting their tow release altitudes to the club treasurer or billing assistant.

#### **2. Handling Sailplanes, Driving Carts**

In general, only MSC members are allowed to handle club sailplanes or drive carts, but the FOO may authorize a competent person to assist.

### **3. Wing Runners & Signalers**

Wing runners and signalers must be well-versed in operational procedures at Stanton airfield. It is strongly recommended that each member complete the Wing Runner course offered online by the Soaring Society of America (SSA).

### **4. Wing Walkers with Wind**

When moving sailplanes in high winds, walkers on both wings should be assigned by the FOO. A single wing walker should walk the upwind wing of the sailplane. In extremely windy or gusty conditions, a member may also be assigned to sit in the cockpit and adjust the flight controls to help stabilize the sailplane and prevent them from flapping around in the wind.

### **5. Securing the Sailplane**

A sailplane should not be left unattended on the field at any time unless its canopy is latched. In moderate or strong wind, the lowered wing should be secured to the ground by an adequate weight or tie-down.

### **6. Runway Selection**

In compliance with Stanton Airfield policy for glider operations, the FOO shall confirm with John Quilling or Toby Hanson (designated airport operators) the choice of active runway, prior to staging the day's operation. If the winds shift during the day, the FOO shall confirm with John or Toby any decision to change the active runway, prior to moving the operation to that runway. If neither John nor Toby is on site, call John at 952-454-2859 or Toby at 952-292-7437.

### **7. Retrieving**

Members should be quick to help retrieve landing sailplanes, especially when it's windy or when the sailplane has not cleared the runway. However, ground crew members should not approach the sailplane until it has rolled to a stop.

### **8. Hangaring**

The pilot who makes the last flight of the day in a club sailplane is responsible for helping the FOO return the sailplane to the hangar. At the FOO's discretion, other members may be asked to remain on the field to help retrieve and hangar sailplanes, and to secure other club equipment. Before leaving the field at the end of the day, members are expected to check with the FOO to see if their help is needed.

## **9. Suspending an Operation**

The FOO is responsible for halting a flying operation if the weather or other conditions are judged to be unfit for flying or are likely to become so.

## **B. Handling Canopies**

Canopies are fragile! Pilots, wing runners and other ground crew members should keep the following guidelines in mind. Everyone is responsible for protecting our precious, easily damaged canopies.

### **1. General Canopy Guidelines**

- Do not move a glider with an open canopy. It could slam shut and be damaged.
- Do not leave an open canopy unattended. A bump or wind gust could cause the canopy to slam shut and be damaged.
- Close canopies carefully and slowly. Do not allow the canopy to slam shut. A closed canopy must be latched.
- If the canopy latch does not close easily, do not force it. Something is probably interfering with canopy closure. Investigate.
- Never open a canopy by lifting on the top edge of the vent window. Always use the canopy handle!
- Avoid touching the canopy. When verifying that the canopy is locked, prior to takeoff, push upwards against the canopy frame rather than against the canopy itself.
- Sunlight can be reflected by the inside surface of an open canopy, and focused like a magnifying glass. A seat cushion, headrest, glare shield or anything else in the cockpit can be burned in a matter of seconds. Do not leave a canopy open unless carefully attended.
- When reaching through the vent window to lock or unlock a canopy, be careful not to apply any force to the canopy.
- Open the canopy first to operate the tow release when attaching the tow rope; do not reach through the vent window.

### **2. Canopy Guidelines for the ASK 21 and ASK 21 B**

- The ASK 21 and the ASK 21 B have separate front and rear canopies. To minimize the chance of a canopy mishap on the ground, members must ensure that both front and

rear canopies are closed and latched when the sailplane is left unattended. It is usually sufficient to latch only the rear (left-hand) side of each canopy.

- The front and rear canopies of the ASK 21 and ASK 21 B have latches on both sides. Pilots must ensure that both latches for each canopy are properly closed before takeoff.
- The latches of the front and rear canopies of the ASK 21 B are interlocked. The front canopy cannot be locked unless both sides of the rear canopy are latched. Do not try to force the front canopy closed; first latch the rear canopy. Be careful to fully engage the latches: first close them until a “stop” is felt, then push more to fully close the latch in the locked position.
- The rear canopy of the ASK 21 B can be opened even though the front canopy remains closed. It would therefore be possible to launch with the rear canopy unlatched—in that event, the rear canopy would surely be blown away, possibly damaging the tail. Make sure that both latches for the rear canopy are closed.
- If flying the ASK 21 solo, lock the rear canopy before climbing into the front seat. If flying with a passenger who is not a glider pilot, be sure to instruct the passenger not to touch the latches in flight. In all cases it is the responsibility of the pilot to ensure that both canopies are properly latched before takeoff.
- On the ground, it is sufficient to secure the front and rear canopies of the ASK 21 or ASK 21 B by closing the left-hand latches only.

## **C. Weights and Ballast**

- The pilot is responsible for verifying compliance with the recommended center-of-gravity (CG) range for the glider, adding or removing ballast weights as may be required.
- The minimum front seat weight of the ASK 21 or ASK 21 B is 175 pounds. This club policy was established to mitigate the risk of a severe nose-down pitch occurring during an incipient spin.
- After flying the ASK 21 or the ASK 21 B, pilots are expected to leave 6 lead ballast weights installed. A pilot may add or remove ballast weights as may be needed to stay within the recommended safe CG range, but after flight the pilot must ensure that six (and only six) weights are installed, unless requested otherwise by the next pilot to fly the ship.
- Before flying any club ship, pilots should verify whether or not any weights have been tucked under the seat cushion.

## **D. Flight Reports**

### **1. Logging Daily Flights**

All flights must be logged on a daily flight sheet. After the day's flying activities, the flight sheets should be placed in the designated location in the clubhouse. The FOO should photograph the flight sheet and send it via text or email to the club treasurer and/or the billing assistant.

### **2. In the Event of an Accident or Incident**

Any accident or incident involving injury or nontrivial equipment damage must be reported immediately to the Field Operation Officer and to airfield management. Refer to Part 5, *MSC Emergency Response Plan*. A written report describing the accident or incident (or less serious event, such as minor damage to a sailplane) must be submitted to the Director of Operations.

### **3. In the Event of a Landout**

If an MSC sailplane on a local flight lands out, the pilot is responsible for assembling a retrieval team, returning the sailplane to the airfield and reassembling it. The pilot must submit a written report about the outlanding to the Director of Operations.

Of course, the FOO and other MSC members should provide any assistance that may be needed to safely retrieve any sailplane, whether it's a club ship or a member-owned sailplane.

### **4. Regulation Violation**

A member who violates flight regulations or who witnesses a violation is responsible for reporting it to the Director of Operations. Members are encouraged to report violations to the FAA's Aviation Safety Reporting System (<https://asrs.arc.nasa.gov>).

### **5. Aircraft Malfunction**

A malfunction or other problem with any club aircraft must be reported as soon as possible. See Part 2 (C), *Equipment Malfunction*.

## **E. Flying Preference**

### **1. Priority Preference List**

During scheduled operations a priority list is used by the FOO to determine which member may make the next flight, either in an MSC sailplane or a privately owned sailplane. Upon

arriving at the field, members add their names at the bottom of the priority list. It is assumed that the names of the FOO, tow pilot and instructors occupy the top of the list.

A member can designate a sailplane preference (e.g., Junior, ASK 21) in the priority list.

The member whose name is at the top of the list is offered the next opportunity to launch, assuming the sailplane the member wants to fly is available. The member may choose to pass, in which case the next member on the list is given the option to fly or pass. This process continues until a member exercises the option to fly. The name of that pilot is crossed off the list at the time of takeoff.

As each sailplane lands the pilot is responsible for clearing the runway, moving the sailplane back to the flight line and securing the sailplane. Then the name of the pilot may be re-entered, at the bottom of the priority list.

Members who are signing up for instruction use a separate list on the priority sheet.

The FOO may give priority preference to practical exam flights, flight reviews, first solos, badge/record flights and demonstration or courtesy rides.

See topic (5) Instruction, below, for how students can sign up for instruction in the afternoons of a scheduled operation.

## **2. Family Members**

If a Family member and the Family member's sponsoring Active member wish to fly during the same operation, they must share one position on the priority list. For example, if the Active member flies first, the Family member's name cannot be placed on the priority list until the Active member has landed.

A Family member and the sponsoring Active member (or two Family members having the same sponsoring Active member) cannot both have priority for instruction on the same day. Only if there are otherwise unfilled instruction slots can both members get instruction on the same day.

## **3. Passengers**

A member who flies as a passenger in a two-place sailplane retains his or her position on the priority list.

## **4. Badge and Cross-Country Flights**

The FOO should make reasonable efforts to give launch (and re-launch) priority to pilots attempting bonafide cross-country and/or badge flights.



## **5. Instruction**

During scheduled instruction, the club's sailplanes are reserved for instruction until 12 PM noon. Likewise, launch priority is given to instruction flights until noon. Instruction flights should not continue past about 12:15 pm if there are members on the ground waiting to fly the glider(s).

The FOO may allow any member to fly a club sailplane before noon if the ship is not needed for instruction. In such cases, and if the member lands before noon, the member's position on the launch priority list is retained. The FOO may launch any sailplane during the instruction period if it would not delay or otherwise interfere with instruction flights.

Students (members who do not have a private pilot-glider certificate) may put their names on the pilots' priority list to fly a club ship in the afternoon of a scheduled weekend operation if an instructor is willing to fly with them or, in the case of solo students, if an instructor will be present to observe the launch. However, students are not allowed to add their names to the pilot priority list until 12 PM.

With Board approval, an MSC instructor may reserve one or more club gliders for all-day instruction on a weekday. Members not seeking instruction can fly any club ship or privately owned ship after 12 PM on such a day. However, the first two places on the priority list for afternoon launches are reserved for the duty instructors (assuming there are two instructors). After 12 PM, students may put their names on the priority list for afternoon launches. Members not seeking instruction may put their names on the priority list (after the instructors' names) at any time during the day.

Students are expected to sign up for instruction in advance on Click n' Glide.

## **6. Click n' Glide**

Students and other members sign up via Click n' Glide for instruction on weekend mornings or midweek training events. Per club policy, Click n' Glide will not allow a student to be signed up for more than four instruction slots. This policy was established to ensure equitable access to instruction for all members. A student with four future signups would have to cancel one of them before trying to sign up for a newly opened training slot on a preferable day.

Students seeking instruction should sign up on Click n' Glide as soon as they're sure about wanting instruction on a given day—and preferably by 8 AM of the day prior. If signing up later than that, students should also contact the instructor by phone or email.

Members who sign up for instruction on Click n' Glide but then determine that they will not be able to appear for instruction are expected to cancel their signups as soon as possible. When a member doesn't show up for instruction, it takes away the opportunity for other members to get instruction, and annoys everyone involved. For a late cancellation (within 4

days of the reserved date) the member should email or call the scheduled FOO, in addition to canceling on Click n' Glide.

Pilots who are not seeking instruction are encouraged to sign up in the Licensed Pilots list in Click n' Glide, but pilots are welcome to show up at the airfield anytime, without signing up.

Members are encouraged to indicate a specific glider preference (e.g., the Junior) when signing up in Click n' Glide as a Licensed Pilot or Solo Student. However, doing so does not reserve the glider for the member's exclusive use. Other pilots may wish to fly the same glider.

You can reserve the Junior for a cross-country flight during scheduled operations with prior approval by the FOO; see Part 1 (Flight Regulations) | C (Flight Restrictions) | Cross-Country Flights in MSC Sailplanes.

A member who wants to fly the Junior cross-country during an ad hoc operation (with or without a FOO on duty) can indicate "Junior x-country" in Click n' Glide, and then negotiate with any other members who might also wish to fly the Junior that day.

Do not use Click n' Glide to sign up for a flight review. Instead, contact your favorite flight instructor to make arrangements.

## **7. FOO's Discretion**

The FOO may give priority preference to practical exam flights, flight reviews, first solos, badge/record flights and demonstration or courtesy rides.

## **8. Guest Pilots**

See Part 1, Section C: Flight Restrictions / Aircraft Not Owned by MSC or MSC Members.

## **9. Demonstration Rides**

Members are strongly encouraged to give rides to visitors who are interested in joining the club. It is permissible to ask the visitor to split the cost of the ride (i.e., tow fees and glider rental). The FOO is encouraged to give launch priority to a member giving a demonstration ride.

Before being given a ride in a club glider, a visitor who is over age 18 must sign a liability waiver agreement, pursuant to MSC policy established in 2026. If the visitor is under 18 years of age, a parent or guardian must sign.

*The current version of this document is at [mnsoaringclub.com](https://mnsoaringclub.com). A printed copy may not be current.*

The FOO is responsible for ensuring that the liability waiver agreement is properly completed and signed before a ride is given. The FOO should retain the signed agreement in the FOO cart, after photographing the signature page and emailing it (along with the photo of the day's flight log) to the club treasurer and/or the billing assistant.

Printed copies of the liability waiver agreement will be kept in the FOO cart. The document may be downloaded at [https://mnsoaringclub.groups.io/g/all/files/Waiver and Release of Liability Agreement 012926N.pdf](https://mnsoaringclub.groups.io/g/all/files/Waiver%20and%20Release%20of%20Liability%20Agreement%20012926N.pdf).

## F. Field Flight Patterns

### 1. Standard Landing Pattern

The flight pattern to be used at Stanton is the AIM standard left-hand pattern with a 45-degree dogleg entry, as shown in Figure 1. At Stanton, sailplane pilots should enter the 45-degree dogleg at approximately 800' AGL. Pilots may deviate from this pattern when required for safety.

Tow pilots and pilots of higher performance sailplanes must be aware that inexperienced pilots fly the club sailplanes. More experienced pilots should be ready to adjust their patterns to minimize conflicts with less experienced pilots.

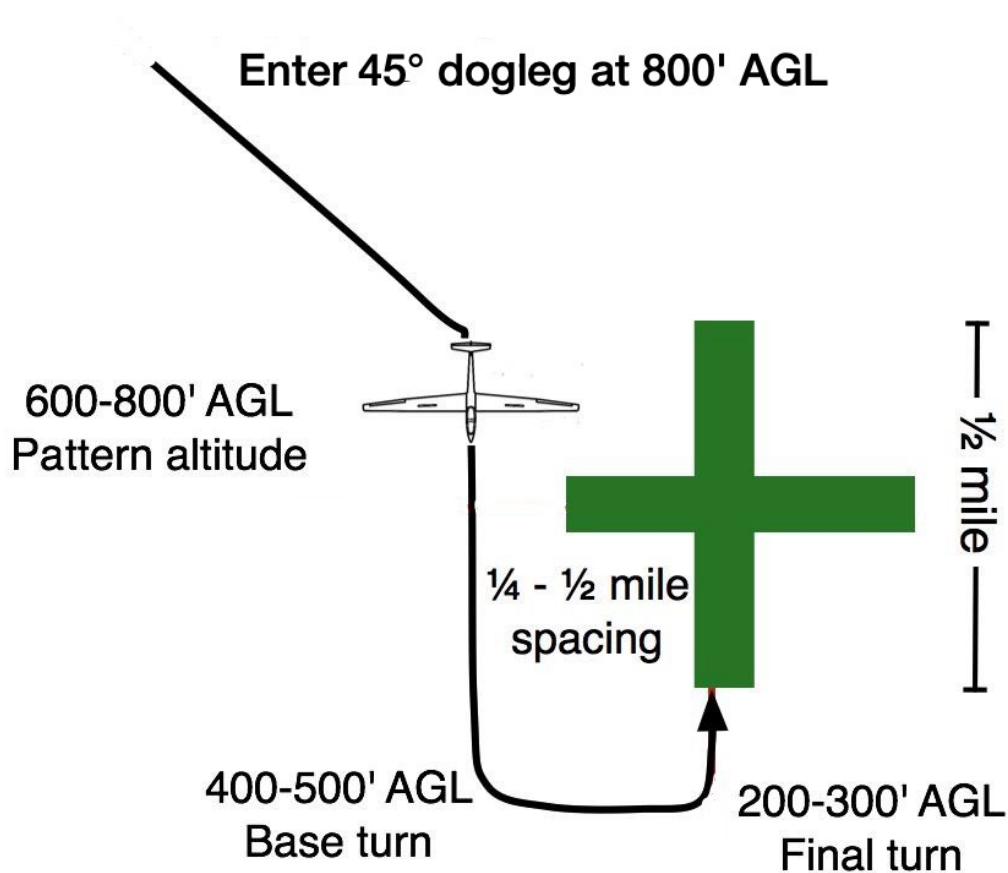


Figure 1: Standard landing pattern at Stanton (in still air conditions)

## 2. Landing Pattern Airspace

Figure 2 illustrates landing pattern airspace within which pilots should be proceeding directly to land if they are below 2400' MSL. The cylinder has a radius of 1.5 statute miles, and is centered on the runway intersection. *No thermaling is permitted within the cylinder* except when necessary to delay landing due to traffic in the pattern. Pilots are expected to make the appropriate radio calls when entering and within the pattern cylinder.

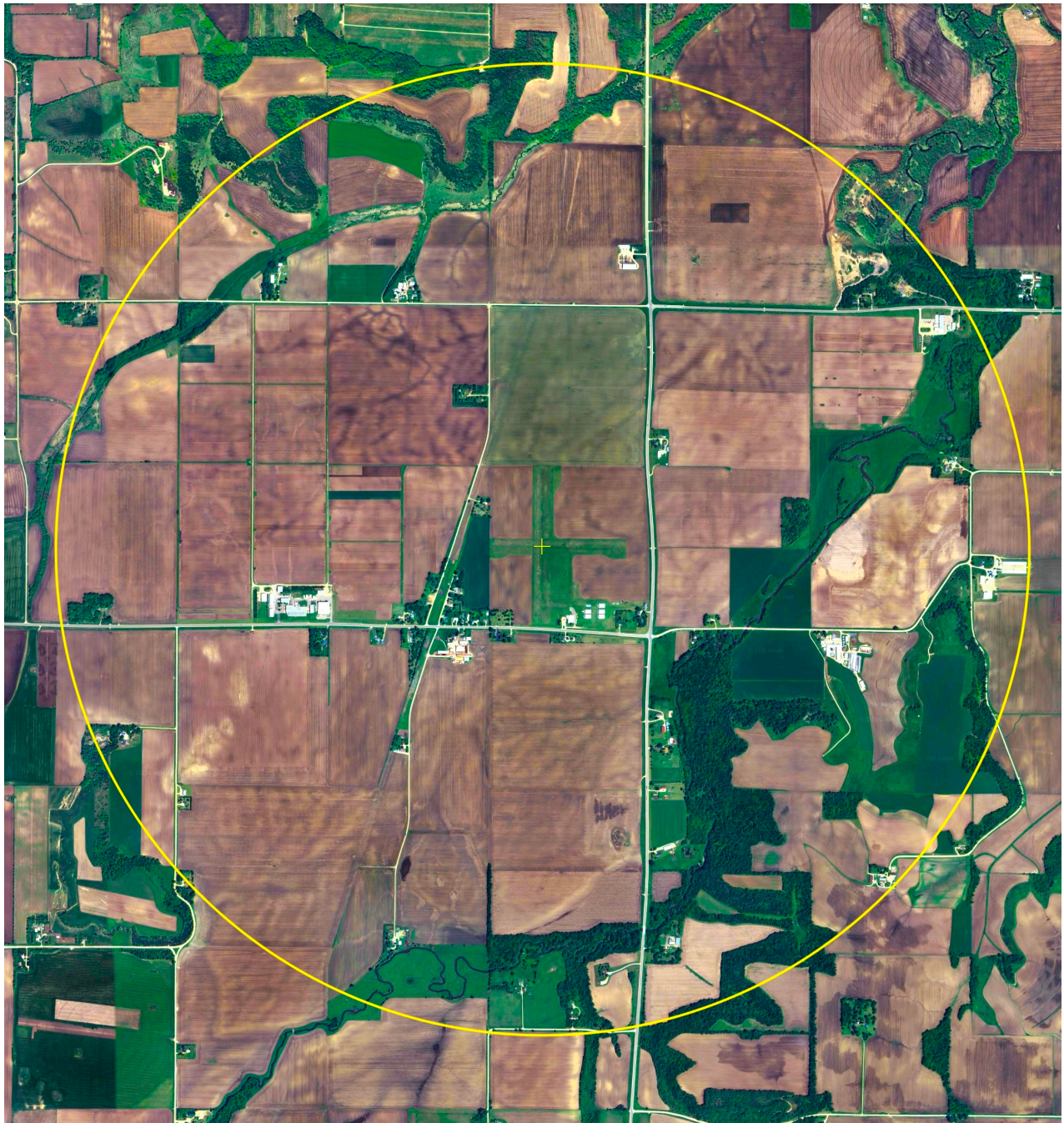


Figure 2: Landing Pattern Cylinder: 1.5 statute mile radius, surface to 2400' MSL.



### 3. Pattern Tows

A practice pattern entry tow will be to at least 2400' MSL (1500' AGL). *The tow plane will land first.* The minimum release height of 2400' allows the glider to circle a few times before entering the pattern, in order to maximize separation from the tow plane. See Figure 3, *Typical Pattern Tow*.

If required for safety, the sailplane can land before the tow plane, provided the sailplane pilot confirms the change with the tow pilot.

To increase separation from the airfield, typically the tow pilot will commence a 45-degree right turn at 1000' to 1200' AGL.

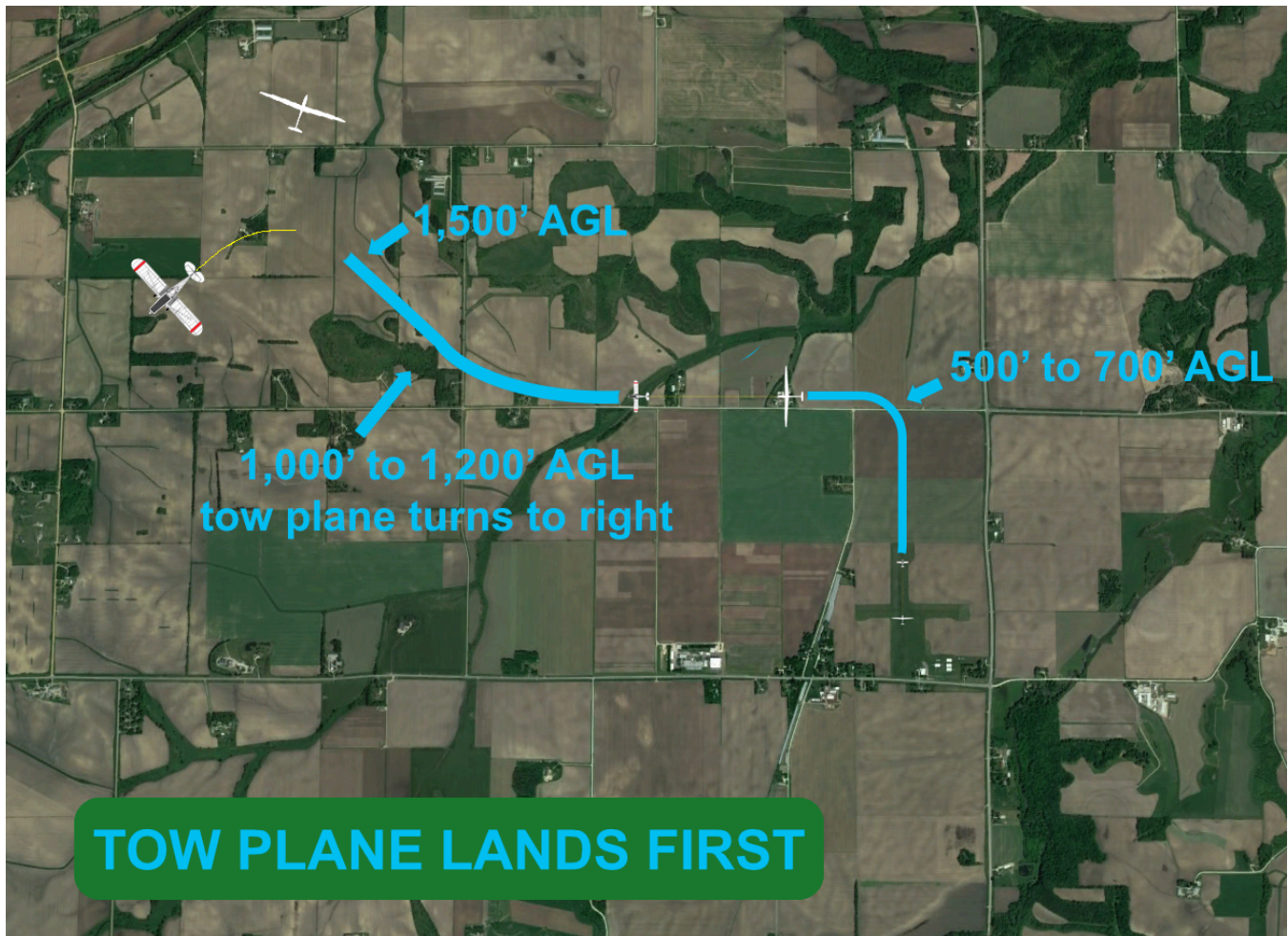


Figure 3: *Typical Pattern Tow.* The glider pilot releases at 1500' AGL and turns right. The tow plane turns left, and lands before the glider does.

Instructors have the discretion to intentionally terminate tows at lower altitudes for training purposes, and any pilot may do so in an emergency or urgency situation.

To minimize the chance of a midair encounter between the sailplane and tow plane, the following procedure is strongly recommended for pattern tows:

On the ground before launching, the tow pilot and glider pilot confirm that the tow pilot will land first.

Upon release, the sailplane pilot confirms that the tow pilot will land first by radioing something like, "Tow Plane niner-zero-yankee, glider has released and will land second."

## **G. Launch Signals and Procedures**

In preparation for a sailplane launch, a sailplane wing runner and a tow plane starter (signaler) assist communication between the sailplane pilot and the tow pilot. The wing runner and the starter facilitate safety by ensuring that the launch does not conflict with other traffic and that the runway is clear.

Figure 4, *Aerotow Pre-Launch Signals*, illustrates the signals used on the ground for launching a sailplane. Standard launch procedures are as follows:

- The sailplane pilot is in command. All takeoff signals must originate from the sailplane pilot (or the student, in a training flight with the instructor aboard).
- The sailplane wing runner has the primary responsibility of ensuring that there is no conflicting traffic. The wing runner must check for traffic on the cross runway and upwind, as well as in the active pattern.
- The sailplane wing runner places the sailplane wingtip on the ground when there is a delay. The wingtip on the ground makes it obvious that the takeoff is delayed.
- The starter (signaler) should stand along the edge of the runway within sight of the tow pilot. The starter should also check for conflicting traffic.
- The starter relays signals to the tow pilot, as directed by the wing runner. However, the starter may at any time signal to hold or stop the launch.
- When the sailplane pilot gives the thumbs-up signal, the wing runner levels the wings and gives the Take Up Slack signal.
- The sailplane pilot signals readiness to launch by pointing forward with an index finger. The wing runner, after checking for traffic, gives the Begin Takeoff signal. After a final check for conflicts, the starter relays the Begin Takeoff signal to the tow pilot.

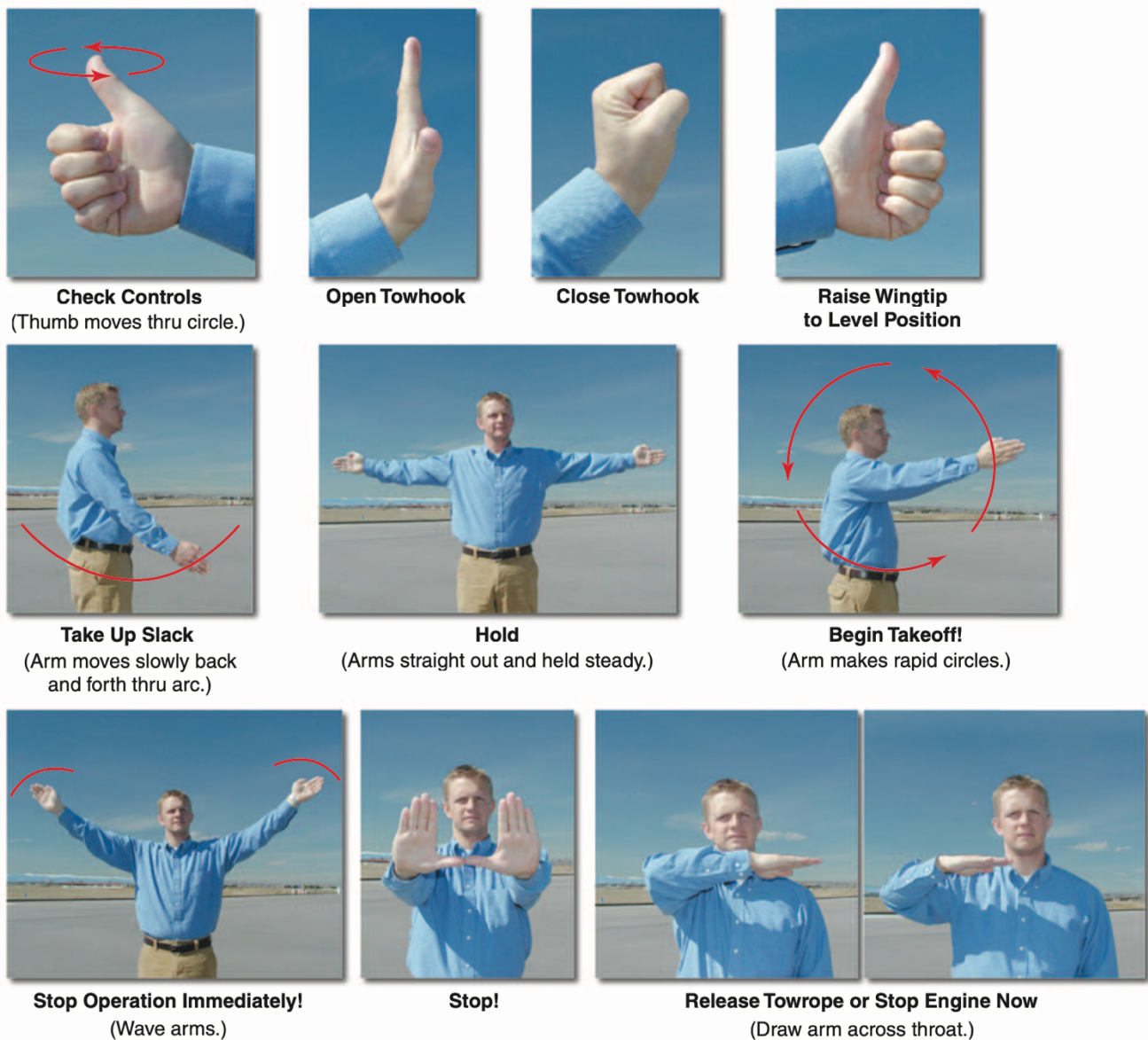


Figure 4: Aerotow Pre-Launch Signals (from *Glider Flying Handbook*, FAA-H-8083-13A, 2013)



## **H. Airborne Signals**

### **1. Airborne Signals in Normal Flight**

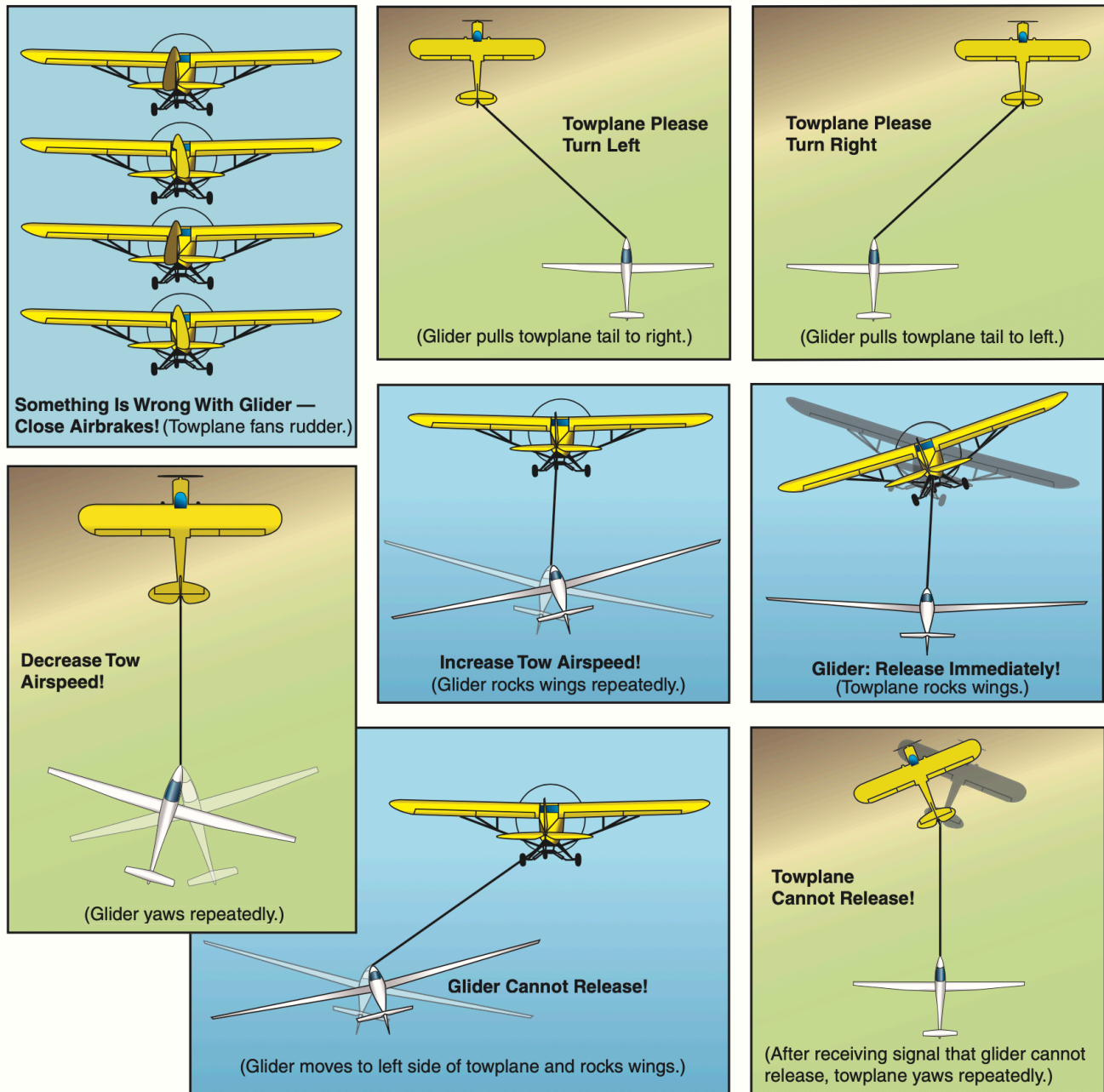
Refer to Figure 5, *Aerotow In-Flight Signals*. The following signals can be used by the sailplane pilot and tow plane pilot in flight, whether or not radio communication is possible.

- Request Right Turn: The sailplane moves to the left and high, to a position where the tow pilot can see the glider, but not beyond the bounds of the wake box.
- Request Left Turn: The sailplane moves to the right and high, to a position where the tow pilot can see the glider, but not beyond the bounds of the wake box.
- Request Speed Up: From directly behind the tow plane, the sailplane rocks its wings repeatedly.
- Request Slow Down: From directly behind the tow plane, the sailplane yaws repeatedly.

### **2. Airborne Signals for Abnormal Conditions or Emergencies**

Refer to Figure 5, *Aerotow In-Flight Signals*. The following signals can be used by the sailplane pilot and tow plane pilot in flight whether or not radio communication is possible. *See the next section for emergency procedures.*

- Release Immediately: The tow plane rocks its wings two or more times. The sailplane must release without hesitation!
- Glider Problem, Spoilers Are Open: The tow pilot waggles the rudder rapidly (with little or no yawing).
- Sailplane Cannot Release: The sailplane moves out to one side (preferably to the left, so the tow pilot can see) and rocks the wings.
- Tow Plane Cannot Release Either: The tow pilot uses the rudder to yaw back and forth.



**Figure 5: Aerotow In-Flight Signals**  
(from *Glider Flying Handbook*, FAA-H-8083-13A, 2013)

## **I. Emergency Procedures**

Except for immediate-release commands, the following standard procedures would best be coordinated by radio, assuming the two pilots have radio communication.

### **1. Immediate Release Signal**

When the tow plane rocks its wings, the sailplane must release immediately.

### **2. Tow Plane Not Visible**

If at any time the sailplane pilot loses sight of the tow plane, the sailplane pilot must release immediately.

### **3. Sailplane Cannot Release**

If the sailplane has signaled that it cannot release the towline, the tow plane should tow the sailplane over the airfield or other designated soaring site. The sailplane pilot should maintain a high tow position.

The tow pilot releases the towline at an adequate altitude above the airfield. The sailplane, with the towline still attached, should cross the landing area boundary high enough to prevent the dangling towline from hitting anything or getting snagged.

### **4. Neither Sailplane Nor Tow Plane Can Release**

When the tow pilot and sailplane pilot have signaled or radioed each other that neither aircraft can release the towline, the standard procedure would call for the tow plane to proceed to the largest practicable landing area within reasonable range.

The tow plane should gradually descend while the sailplane pilot descends to the low-tow position, and yaws to prevent overrunning the tow plane, using airbrakes only if yawing is insufficient. The final approach to landing should be straight-line, shallow and at least one mile long.

On the landing roll, the tow plane should use no brakes, and perhaps apply a little power to extend the roll. The tow plane should favor the left side of the runway. The sailplane should favor the right side of the runway.

Assuming radio communication is possible, the two pilots should plan and coordinate this procedure by radio. In any case, the tow pilot (assumed to have a radio) should declare an emergency to keep the area clear of other traffic.

## **5. Aborted Takeoff Roll**

When the takeoff roll must be aborted due to engine failure, conflicting traffic or other factors, both the tow plane and the sailplane should release the towline. The tow plane should favor the left side of the runway, and the sailplane should favor the right side of the runway.

## **6. Tow Plane Engine Problem**

In the event of an engine problem that stops short of complete engine failure, the tow plane should attempt to continue level flight in order to get the sailplane in a favorable position for an emergency landing. If level flight is not possible, the tow plane should signal (and radio) the sailplane pilot to release.

## **7. Tow plane Engine Failure**

In the event of a complete engine failure, the tow plane should immediately release the towline.

## **Part 4: Field Operation Officer (FOO) Guide**

### **A. About FOOing**

The FOO is in charge of the soaring operation and has full responsibility for running it safely and efficiently, consistent with flight regulations and MSC bylaws.

The role of the FOO is critical for a soaring operation to be safe and efficiently run, yet fun for all involved. To be a good FOO requires organizing ability, people skills, assertiveness, attentiveness and knowledge—knowledge about aviation in general, flight procedures at the airfield, sailplane handling, safety issues, and MSC practices for running a successful soaring operation.

### **B. Appointment**

To be approved as a FOO, a member must be authorized by an MSC instructor or by the Director of Operations as having been checked out in all related procedures and practices, and having completed the SSA's Wing Runner course.

From the MSC Membership Guide (version 1.0):

The Director of Operations or an MSC instructor may authorize a member to be a Field Operation Officer. To qualify, a member must be at least 18 years old, have the appropriate experience and be willing to accept the responsibilities. A FOO candidate must be thoroughly checked out under policies overseen by the Director of Operations.

Generally, newer members lack the experience to serve as FOO. Most FOOs are certificated with a glider rating. Field Operation Officers are given significant authority and responsibility, and must be up to the task by having gained significant operational and flight knowledge

It is important that FOOs be aware of any updated procedures or practices.

The Director of Operations maintains a listing of FOO-qualified members, and oversees FOO assignments for scheduled soaring operations.

### **C. Obligation to Serve as FOO**

It is the obligation of all members who are active pilots to become FOO-qualified and serve as FOOs. Student pilots may be qualified for FOO service at the discretion of the Director of Operations.

All FOO-qualified members are required to serve as FOO during the course of the soaring season. FOO-qualified members who choose not to serve in this role can lose flight privileges.

Prior to the start of each soaring season, members may sign up for FOO duty on dates they choose. The Director of Operations will determine the required number of signup dates based on the number of FOO-qualified members. The Director of Operations may schedule members for FOO service, as circumstances may warrant.

A member who finds that he or she cannot FOO on a previously scheduled or assigned date is responsible for finding a replacement (typically by emailing the club). If a replacement cannot be found, then the member is responsible for promptly notifying the Director of Operations.

Tow pilots and flight instructors are not required to serve as FOOs.

## **D. FOO Procedures and Practices**

*See the Appendix for an abridged FOO checklist.*

### **1. Preparing Yourself**

Before you serve as FOO, please re-read Part 3 (Operations) and Part 4 (Field Operations Officer Guide) of this document. Your responsibilities as FOO are complex, and it is critical that you be prepared. A short checklist can be helpful, but does not adequately cover all circumstances.

### **2. Planning and Communicating**

- Several days prior to the operation, the FOO should contact the scheduled instructor(s) and tow pilot, to ensure everyone is on the same page.
- The FOO should email the membership to announce the planned operation a couple of days prior. If forecasts indicate that the weather may be unsuitable for flying due to rain, low ceiling, high winds, etc., the FOO should advise the members about the prospect that the operation may be canceled, and ask them to stay tuned.
- Before canceling an operation due to weather, the FOO should consider first consulting with the tow pilot and instructors. FOOs are urged to wait until the morning of an operation before canceling—on many occasions the weather has turned out to be suitable for instruction on a day that has been canceled. If canceling, notify the entire club by email, and notify via Click n' Glide all members who have signed up to fly, tow or instruct.

- If forecasts indicate that excellent soaring conditions are likely, the FOO should consider contacting Stanton Sport Aviation a couple of days ahead of time to see if a second tow plane could be scheduled for the peak launch times, when a dozen members may want to launch all at the same time. A surcharge, currently \$20, is billed to each pilot during a weekday operation when Stanton Sport Aviation provides some or all of the day's tows. There is no surcharge for weekend operations.

### **3. Consulting Airfield Management**

- Before commencing operations, the FOO should talk with John Quilling or Toby Hanson (designated airport operators) about the day's events, such as CAP operations, glider rides, power instruction or airfield mowing. The FOO should also ask when the fuel pumps will be turned off, and then advise the tow pilot accordingly. FOOs should make arrangements as early as possible for towing by Stanton (e.g., on a good soaring day when many private ships are expected).
- In compliance with Stanton Airfield policy for glider operations, the FOO shall confirm with John Quilling or Toby Hanson (designated airport operators) the choice of active runway, prior to staging the day's operation. If the winds shift during the day, the FOO shall confirm with John or Toby any decision to change the active runway, prior to moving the operation to that runway. If neither John nor Toby is on site, call John at 952-454-2859 or Toby at 952-292-7437.
- The FOO should notify John Quilling or Toby Hanson in advance about ad hoc weekday operations.

### **4. Preparing for the Operation**

- The FOO, students and duty instructors should arrive at the hangar by 8 AM unless other arrangements have been made.
- Upon arrival at the field, the FOO should don the stylish day-glo vest so that students and other members can easily identify who is the FOO.
- The three club aircraft share a hangar with the golf carts and FOO cart. The FOO should supervise the students or other members present as they remove aircraft and other equipment from the hangar.
- The FOO or a club member under the FOO's direct supervision must check the oil of each golf cart before it is driven. The FOO is also responsible for verifying that golf cart and FOO cart tires have adequate inflation.
- Priority should be given to preflighting the two-place ships and getting them to the flight line so that instruction can commence promptly.

- Unless the afternoon operation is expected to be canceled, the Junior should be preflighted and brought to the staging area so that it will be readily available to members following instruction. However, the priority is to get instruction started as soon as possible, so the FOO must decide how and when to arrange for the Junior to be preflighted and brought to the staging area without delaying instruction.
- Note that seatback cushions of specified thickness are required equipment for the ASK 21 and ASK 21 B. Custom upholstered cushions which fit the seatbacks should be left in each glider.
- At least a dozen 0.5-liter water bottles should be kept in the FOO cart and freely offered to members, especially on hot days. Dehydration is a flight risk. Cases of water bottles are maintained in the hangar by a volunteer appointed by the Director of Operations.
- Any aircraft or club equipment that will not be used for the day's operation should be kept in the hangar. The hangar door should be closed before leaving.
- The tow pilot will generally remove the tow plane from its hangar without assistance, but the FOO should offer to help.
- The FOO is responsible for ensuring that preflight inspections and positive control checks have been completed before sailplanes are moved to the airfield. The FOO should also ensure that the golf carts have adequate fuel and oil.
- When moving aircraft to the airfield on a windy day, the FOO should ensure that the wing walker for each glider is on the upwind wingtip. Additional people may be assigned to walk the other wing or sit in the cockpit.
- If for any reason an aircraft not owned by the club has to be moved, the FOO must ask Stanton Sport Aviation (airfield management) for permission and/or assistance.

## **5. Staging**

- Sailplanes should be staged on the south side of the runway approach end when using runway 9 or 27, and on the east side of the runway approach end when using runway 18 or 36.
- A "sterile zone" extending 100 yards forward from the launch position should be kept clear of other sailplanes, carts, people, etc., to minimize the risk of an accident during the early takeoff roll. The FOO should be especially attentive to spectators and children.
- Sailplanes left unattended on the field must be adequately secured. Whenever a sailplane is parked on the field it should be placed with the upwind wing on the ground and with the sailplane angled so that the wind blows over the ship from a rear quarter. In moderate or strong wind the lowered wing should be secured to the ground by an adequate weight. Tail dollies must be removed.



- After landing a club sailplane, the pilot is responsible for seeing that it is either secured properly or turned over to the next pilot assigned to fly it.

## **6. Preflight Briefing**

Prior to first launch the FOO should conduct an operational and weather briefing for the assembled pilots and students. The FOO's name and mobile phone number should be written on the whiteboard on the FOO cart.

## **7. Coordinating the Operation**

To run an efficient operation, the FOO must be aware of everything that is going on, and politely assertive to direct the activities of the pilots, ground crew and other members on the field. Situational awareness at all times is imperative.

*A critical responsibility of the FOO is to regularly scan the airspace during operations, to minimize the risk of conflicts that could result in a midair collision.*

FOOs should not be shy about asking any member to assume duties such as chasing the rope, readying or moving sailplanes, retrieving gliders or attending to the flight log sheet. Be ahead of the game and anticipate the situation's requirements.

### **a) FOO Handoff**

When a FOO must leave the staging area for any reason (e.g., bathroom break), another qualified member should take over, and wear the day-glo vest so that everyone knows who the FOO is.

### **b) Launch Efficiency**

The FOO should ensure that the next pilot to launch is in line, strapped in and ready, before the tow plane is back on the ground from the previous tow.

### **c) Wing Runners**

The FOO is responsible for ensuring that wing runners and signalers (tow plane starters) are qualified. They must be familiar with the launch signals and procedures followed by MSC at Stanton Airfield. Completion of the SSA Wing Runners course is strongly recommended. Several near-accidents have occurred because of the ignorance of well-meaning helpers.

### **d) Pilot Qualifications**

The FOO is responsible for checking members' qualification cards to ensure that members fly MSC sailplanes only as authorized. A member who cannot present a

current qualification card, or whose qualification card does not indicate completion of the Safety Briefing (Safety Meeting, typically) and FFWAI (First Flight with an Instructor) is not authorized to fly a club glider.

The FOO is responsible for verifying that a member is qualified and approved to fly a club ship cross-country. See Part 1, Section C: Operations / Flight Restrictions / Cross-Country Flights in MSC Sailplanes.

### **e) Daily Flight Log**

The FOO is responsible for logging all flights on the flight log sheet, noting the times of launch and landing, and entering the release altitude. The name of a passenger or instructor for the flight should be recorded, along with any applicable notes about the flight.

The FOO should also record the tail numbers of member-owned gliders. In the event that sailplane is overdue, the FOO can check online resources ([flightaware.com](http://flightaware.com), [adsbexchange.com](http://adsbexchange.com)) for the flight path of a sailplane that is equipped with a transponder.

The flight logs are permanent club records, and should be treated accordingly. After the day's flying activities, the flight sheets should be placed in the designated location in the clubhouse. The FOO should photograph the flight log and send it via text or email to the club treasurer and/or the billing assistant.

### **f) Tow Ropes**

It is the FOO's responsibility to ensure that the correct tow rope is used for launching club ships. Private ship owners are responsible for ensuring that the correct tow rope or pigtail is used to launch their ships. Pigtails with both Tost and Schweizer rings are kept in the FOO cart.

### **g) Flight Order and Priority**

During scheduled weekend operations, flights in club sailplanes are limited to one hour when another pilot is waiting to fly that ship. The FOO can authorize longer flights. The FOO can request by radio that a pilot flying a club ship return to the field, so that another member can fly that sailplane. The FOO has broad discretion to give priority to flight reviews, first solos, badge or cross-country flights, and to deviate from the order of signups on the list.

### **h) Liability Waiver Agreement Required for Rides**

Before being given a ride in a club glider, a visitor who is over age 18 must sign a liability waiver agreement, pursuant to MSC policy established in 2026. If the visitor is under 18 years of age, a parent or guardian must sign.

The FOO is responsible for ensuring that the liability waiver agreement is properly completed and signed before a ride is given. The FOO should retain the signed agreement in the FOO cart, after photographing the signature page and emailing it (along with the photo of the day's flight log) to the club treasurer and/or the billing assistant.

Printed copies of the liability waiver agreement will be kept in the FOO cart. The document may be downloaded at [https://mnsoaringclub.groups.io/g/all/files/Waiver and Release of Liability Agreement 012926N.pdf](https://mnsoaringclub.groups.io/g/all/files/Waiver+and+Release+of+Liability+Agreement+012926N.pdf).

### **i) Radio Communications**

An air-band radio installed on the FOO cart, powered by the 12-V cart battery, should be tuned to the Stanton CTAF frequency, 122.8 MHz, and continuously monitored. A handheld aviation radio is also provided at the FOO cart. It should be tuned to 123.3 MHz and used to communicate with pilots aloft, who should address the FOO cart as "Stanton Glider Ground." Transmissions to pilots on the CTAF frequency should be limited to calls about flight operations or safety—for example, advising the pilot about traffic conflicts.

### **j) Suspending an Operation**

The Field Operation Officer is responsible for halting a flying operation if the weather or other conditions are judged to be unfit for flying or likely to become so. Gusts that exceed or are predicted to exceed 25 mph would be justification for suspending the operation (*ref: Stephen Nesser's 1/8/23 email to the club*).

The FOO may choose to shut down the operation if members are not showing up to fly on what appears to be a mediocre soaring day. However, the FOO should send an email at least 2 hours before shutting down, asking members to call if they are planning to fly that day. There have been several instances where members have arrived at the field only to find that the operation has been scrubbed.

### **k) Wrapping Up the Operation**

Under the FOO's supervision, the pilot who makes the last flight of the day is responsible for returning that sailplane to its proper place in the hangar, cleaning bugs from the wings and tail, ensuring the airbrakes are released from detente, removing the battery and putting it on the charger, and replacing the canopy covers. Any trash at the staging area should be cleaned up. The FOO cart, golf carts and other club equipment should be stowed in the hangar after the sailplanes are in position. A weight should be placed on each sailplane's lowered wing.

### **l) Approval for Landing After the FOO Has Left the Field**

If a club two-place sailplane is flown by two members, at least one of whom is FOO-qualified, then with the FOO's prior consent the members may land after the day's operation has ended, when the FOO is no longer present on the field. The FOO-qualified pilot is then responsible for safely returning the glider and all club equipment to the hangar.

### **m) Overdue Aircraft**

If a sailplane is overdue, the FOO should attempt to reach the pilot by radio (122.8 MHz & 123.3 MHz) and by phone—members' mobile phone numbers are listed in the roster on the MSC website. The FOO can ask other pilots in the air to relay the radio call. If the sailplane is equipped with a transponder (all club ships have transponders), then the FOO can check online resources ([flightaware.com](http://flightaware.com), [adsbexchange.com](http://adsbexchange.com)) for the sailplane's flight path. If the pilot cannot be contacted, and if there is reason to suspect the pilot may have landed out, then the FOO should call the FAA Flight Service Station (1-800-WX-BRIEF, 1-800-992-7433), and then notify Stanton airport management and any MSC board member.

### **n) Sending a Recap**

Members are eager to hear about the day's operation—what kind of a soaring day it was, how many flights were made, how long were the flights, who flew what, who completed a badge flight or cross-country goal, etc. The FOO is encouraged to email a recap of the operation to the club. Even better, include a photo or two.

## **8. Placeholder**

ToC formatting issue...

## **Part 5: MSC Emergency Plan**

### **A. Relationship with Stanton Airport Emergency Operations Plan**

The *Stanton Airport Emergency Operations Plan*, developed in compliance with 14 CFR § 139.325 (“Airport emergency plan”), was formalized in 2017. This 21-page document is linked on the MSC website.

While the Stanton plan is essentially the letter of the law for emergency operations at or near Stanton Airfield, it does not adequately address how MSC members should respond in the event of an aircraft accident or incident at Stanton or elsewhere. Accordingly, the MSC Emergency Plan is intended to supplement the Stanton plan.

There are two notable, overriding provisions in the Stanton plan that are relevant to MSC:

- “The Airport is responsible for emergency response on the Airport.”
- “Only the airport board of directors or the airport manager will release information or press release statements to the press regarding any incident that took place on the airport property.”

### **B. MSC Emergency Response for an Accident or Serious Incident at Stanton Airfield**

The following actions are listed in priority order, but several of the actions could be underway at the same time. For example, the FOO might be trying to reach the airport manager while another member is radioing pilots aloft. The first priority, however, is to call 911 in the event of a serious accident.

#### **1. Call 911**

In the event of an accident that may have caused injury, immediately call 911.

#### **2. Render Aid**

MSC members would naturally want to assist someone who is injured or is in danger. Minnesota’s Good Samaritan Law is applicable: “A person at the scene of an emergency who knows that another person is exposed to or has suffered grave physical harm shall, to the extent that the person can do so without danger or peril to self or others, give reasonable assistance to the exposed person.”

A fire extinguisher and first aid kit are kept at the FOO cart.

### **3. Notify Stanton Personnel**

Stanton Airfield is responsible for emergency response, pursuant to the Stanton Airport Emergency Operations Plan.

The FOO (or someone designated by the FOO) should call airport manager John Quilling's mobile phone at 952-454-2859 as soon as possible when an accident or incident of any nature has occurred. Keep trying if there is no answer. The Stanton Airfield office should also be notified by calling 507-645-4030.

Stanton Airfield is responsible for contacting the FAA or the NTSB about any accident or incident occurring at or near the airfield—even if it involves club aircraft.

An MSC member should not contact the FAA or NTSB to report an accident at Stanton involving MSC aircraft unless cleared to do so by Stanton Airfield management. If so cleared, the FOO (or designee) should promptly report an accident by calling the NTSB's 24-hour Response Operations Center at 844-373-9922.

Stanton Airfield personnel can be expected to close the airport and update the AWOS recording with a closure notification.

### **4. Contact MSC Pilots Aloft**

The FOO should radio any MSC pilots aloft on 122.8 MHz and/or 123.3 MHz to advise them about the emergency. Any member present can make the radio call, but it should primarily be the FOO's responsibility. An MSC pilot aloft could relay the information to any pilots who are out of range of Stanton.

Safety considerations would permit MSC pilots to land at the airfield, but of course they must avoid the accident site, typically by selecting an alternate runway. MSC pilots may choose to land at another airport if one is nearby.

### **5. Provide Appropriate Assistance**

Although Stanton Airfield is responsible for emergency response, MSC members should assist when appropriate.

### **6. Stop the Operation**

The day's soaring operation should be ended. Do not move MSC aircraft or equipment on the field until getting clearance to do so by Stanton Airfield management.

## 7. Notify MSC Club Leaders

In the event of an accident or incident involving club aircraft or a club member, the FOO (or someone designated by the FOO) should promptly call and/or text the club president, vice president and director of operations.

If a club member is injured, the club president (or designee) should call the member's emergency contact. If the member is hospitalized, a member or two can be dispatched to the hospital to provide moral support and to report back any updates about the member's status.

MSC leaders should be alerted about any accident at the field, but with much greater urgency when a club member is involved, especially if injured.

## 8. Report an Accident or Incident Involving MSC Aircraft

It bears repeating that no MSC member should contact the FAA or NTSB to report an accident or incident at Stanton involving MSC aircraft unless cleared to do so by Stanton Airfield management. If so cleared, the FOO (or designee) should promptly report an accident or serious incident by calling the NTSB's 24-hour Response Operations Center at 844-373-9922.

Accidents require immediate reporting. In brief, 49 CFR § 830.2 defines an *aircraft accident* as an occurrence in which a person suffers death or *serious injury* or in which the aircraft receives *substantial damage*. Refer to 49 CFR § 830.2 for detailed definitions of the italicized terms. An *incident* is defined as "an occurrence other than an *accident*, associated with the operation of an aircraft, which affects or could affect the safety of operations."

Not all aircraft incidents require immediate reporting. Refer to 49 CFR § 830.5, "Immediate notification". Damage to a sailplane caused by a hard landing might not call for immediate reporting, but even minor damage caused by a midair encounter would require immediate reporting. If in doubt about whether immediate reporting is required, promptly call the NTSB's Response Operations Center.

When reporting an event to the NTSB, be prepared to provide the aircraft type, aircraft N number, owner's name (Minnesota Soaring Club, for club ships), PIC's name, time of the event, location of the event, passenger names, injuries, nature of the event, weather conditions at the time, extent of damage. Refer to 49 CFR § 830.6, "Information to be given in notification".

## 9. What Not to Do

Do not disturb the scene of the accident or serious incident. In particular, do not attempt to move any involved aircraft, except to rescue someone. The aircraft cannot be legally moved until released by the NTSB and/or FAA. Do not provide any information to the press. Refer any media inquiries to Stanton Airfield management.

## **C. MSC Emergency Response for a Sailplane Accident or Serious Incident Away from Stanton Airfield**

When it is learned that an MSC aircraft or member-owned sailplane has been involved in an off-field accident and that the pilot or a passenger might be injured, the first priority is to call 911.

If it is known with certainty that there is no injury or imminent danger of injury, there is no need to call 911. For example, if the sailplane pilot calls the FOO and says, “I’m fine, but my glider is trashed,” there may be a need for an NTSB report, but no need to call 911.

The following actions are listed in priority order, but several of the actions could be underway at the same time.

### **1. Call 911**

When it is learned that an MSC aircraft or member-owned sailplane has been involved in an off-field accident and that the pilot or passenger might be injured, the first priority is to call 911—even if it’s uncertain that there are injuries, and even if the exact location of the site is unknown.

If the location of the site is unknown, 911 operators can initiate search efforts, including airborne searches by law enforcement aircraft and/or CAP aircraft.

### **2. Render Aid**

If the location of the accident site is known, a team of 3-4 members should be dispatched to the site to render whatever assistance may be needed. If 911 has been notified, it is entirely likely that First Responders will reach the scene first.

If it appears likely that the NTSB will investigate the accident, the team must not try to retrieve the glider, but should allow law enforcement personnel on scene to secure the aircraft.

### **3. Establish Communications Command Post**

A central command post should be established. The FOO or a designated responsible MSC member should coordinate all communications with the pilot (if possible), emergency personnel, MSC members on the scene, and MSC leaders.

The Stanton Airport Emergency Operation Plan does not apply to such off-field events, but Stanton Airfield management should be notified nonetheless, and asked for assistance as may be appropriate.



## 4. Notify MSC Club Leaders

The communications post commander should promptly call and/or text the club president, vice president and director of operations to report the accident.

If a club member is injured, the club president (or designee) should be the person who calls the member's family or emergency contact. If the member is hospitalized, a member or two can be dispatched to the hospital to provide moral support and to report back any updates about the member's status.

## 5. Report an Accident or Incident Involving MSC Aircraft or Member-owned Aircraft

If it is known that there has been an injury—or if the site of the accident remains unknown—the FOO or communications post commander should promptly report an accident by calling the NTSB's 24-hour Response Operations Center at 844-373-9922. An injury event should be immediately reported by MSC whether the sailplane is owned by MSC or by an MSC member.

An accident or serious incident involving a member-owned sailplane can be reported by the owner.

In any case, *accidents* require immediate reporting. In brief, 49 CFR § 830.2 defines an *aircraft accident* as an occurrence in which a person suffers death or *serious injury* or in which the aircraft receives *substantial damage*. Refer to 49 CFR § 830.2 for detailed definitions of the italicized terms. An *incident* is defined as “an occurrence other than an *accident*, associated with the operation of an aircraft, which affects or could affect the safety of operations.”

Not all aircraft incidents require immediate reporting. Refer to 49 CFR § 830.5, “Immediate notification”. Damage to a sailplane caused by a hard landing might not call for immediate reporting, but even minor damage caused by a midair encounter would require immediate reporting. If in doubt about whether immediate reporting is required, promptly call the NTSB's Response Operations Center.

When reporting an event to the NTSB, be prepared to provide the aircraft type, aircraft N number, owner's name (Minnesota Soaring Club, for club ships), PIC's name, time of the event, location of the event, passenger names, injuries, nature of the event, weather conditions at the time, extent of damage. Refer to 49 CFR § 830.6, “Information to be given in notification”.

## 6. What Not to Do

Do not disturb the scene of the accident or serious incident. In particular, do not attempt to move any involved aircraft, except to rescue someone. The aircraft cannot be legally moved until released by the NTSB and/or FAA. Do not provide any information to the press. Refer any media inquiries to the club president, and tell the reporter that you cannot comment.

## **Part 6: Tow Pilot Guide**

### **A. Introduction**

This guide is intended to standardize the operational procedures of all MSC tow pilots. These guidelines should not be interpreted as a substitute for good judgment in an emergency situation. In no case should any MSC tow pilot feel induced to provide towing services under conditions that are perceived as being beyond their piloting skills or beyond the capabilities of the equipment. It should be emphasized that the priorities governing MSC operations are:

1. SAFETY
2. Care of the club equipment
3. Expeditious service

These priorities should be observed strictly in the order listed. The most important thing about towing is to plan ahead and be careful. It is better to quit towing and disappoint a few people than to wreck a tow plane in bad weather or high winds. If you feel the wind is too strong or the engine is running poorly (etc.), QUIT!

### **B. Tow Pilot Eligibility**

Each year, before towing, potential tow pilots must present themselves to the Chief Tow Pilot and confirm that they are in compliance with FAA regulations, MSC regulations and insurance requirements. All tow pilots are MSC members (Associate or Active) and are enrolled by the MSC Treasurer as members of the Soaring Society of America (SSA), a requirement for coverage under the club's group insurance plan.

MSC tow pilots must complete the SSA tow pilot exam every year.

#### **1. FAA Towing Requirements**

The FAA regulation for tow pilots is FAR 61.69. This regulation must be read and understood by all tow pilots.

Tow pilots must hold a Private Pilot certificate (or higher) with an airplane single-engine land rating; have a tailwheel endorsement, or have logged tailwheel flight time as per 14 CFR Part 61.31(i); meet the requirements of 14 CFR Part 61.31(f) for piloting high-performance aircraft; have a current Basic Med or third-class medical certificate (or higher); and possess a current Flight Review as per Part 61.56.

Per CFR 61.69, the tow pilot the preceding 12 months must have performed three actual or simulated tows accompanied by a qualified pilot, or have been towed for three flights in a glider or unpowered ultralight vehicle.

## 2. Tow Pilot Experience Requirements

Normal minimum experience requirements are a combination of insurance policy restrictions (if any) and the discretion of the Director of Operations and Chief Tow Pilot. The present guidelines for experience are listed below:

- 200 hours power PIC flight time
- 25 hours in tailwheel aircraft
- 10 takeoffs and landings in the same make and model tow plane
- 10 previous tows in any aircraft

Stanton Sport Aviation offers tailwheel and tow endorsement training.

## 3. Check Out

When an MSC member who meets the above requirements wishes to become a tow pilot for the club, the Chief Tow Pilot has the discretion to authorize the member to be an MSC tow pilot, documented by signing the MSC member qualification card. An entry must also be made in the pilot's log book.

## C. Tow Procedure

### 1. Takeoff and Tow

On takeoff, allow the tow plane to drift downwind off the center line, allowing for an easier glider return after a simulated or actual rope break.

Tow the glider upwind from the airport unless the glider pilot requests otherwise, and limit the distance so that the glider could return to the airport after a rope break or ill-considered release. Do not fly back over the airport below 1500' AGL (2500' MSL) unless setting up to land. Position yourself on tow for an easy return to the airport after the glider releases, to save time and fuel.

### 2. Tow Patterns

Flight patterns should be modified depending on the winds aloft. The objective should be to keep the sailplane within gliding reach of the field at all times, generally by towing the sailplane upwind. Refer to Figure 3, *Typical Pattern Tow* in Part 3 (F)(3).

### 3. Airspeed, Turns and Such

Maintain proper tow speed by attitude. Find the attitude that maintains the proper airspeed for that sailplane and hold it. Don't chase airspeed. Small variations in airspeed can be tolerated if you start with the proper speed. Slow, smooth pitch changes should be made if the speed starts to diverge too greatly from the optimum.

Avoid abrupt maneuvers on tow. All turns should be entered smoothly and with a maximum of 20 degrees of bank angle. *Do not thermal.* After passing through a thermal, make a large circle and pass through it again, but do not try to thermal in it on tow.

Sailplane pilots who intend to box the wake should signal their intentions to the tow pilot by moving down through the wake into low tow position before beginning to box the wake. If the sailplane pilot wishes to steer the tow plane, standard SSA signals will apply. Unless safety dictates otherwise, the tow pilot will make every effort to comply with the glider pilot's steering directions.

### 4. Glider Release

After positive glider release, bank left, reduce power (>2200 rpm), and lower the nose. Keep airspeed in the green arc. Keep track of the glider visually or on the Garmin display. Position yourself for pattern entry, and announce your intentions 2 miles from airport. Watch for traffic visually and on the Garmin display.

### 5. Landing

*Remember you have a 200-foot tow line behind you.*

Use a landing pattern appropriate for the wind and traffic conditions. Visually watch for traffic, and monitor 122.8 MHz—not all traffic will display on the Garmin. Be courteous to other traffic even if they are flying five-mile finals.

Announce entering pattern and base, and make more calls if necessary for safety. Final approach: rpm as required, full flaps. Clear obstacles by 150 feet for the rope. **Remember you have a 200-foot tow line behind you.**

Speed should be 70 mph on final, 60 mph for normal landings. Carry some power on approach to landing, as this Pawnee will sink without power. Throttle idle at touchdown. After landing, hold stick back and don't use brakes unless required. After clearing the runway: flaps up, mixture lean.

### 6. Wind Considerations & Concerns

The biggest danger to the tow plane occurs on windy days. Operate from the runway that provides the maximum safety for the tow plane.

In compliance with Stanton Airfield policy for glider operations, John Quilling or Toby Hanson (designated airport operators) must confirm the choice of active runway prior to staging the day's operation or later in the day if the wind shifts.

Don't hesitate to recommend changing runways if the wind changes. Work with the FOO to get approval by John or Toby for a runway change. If there is a disagreement, remember that you are responsible for the operation of the tow plane.

NEVER do anything if you are in doubt about the outcome. Be very conservative about operating in strong, gusty winds. Every pilot has to set their own limits as to how much wind they can SAFELY handle. If you are less experienced, or if you're an old hand just having one of those days when nothing goes right, shut down the operation before the tow plane gets bent— not after it gets bent.

Be very careful on downwind taxis. All turns should be made with a minimum amount of power and braking. Avoid locked brake turns. All power changes should be executed slowly and smoothly.

## **7. Glider Retrieves**

The MSC tow plane may retrieve a glider that has landed at an airport. Verify that adequate fuel is available to make the flight; assume 15 gph fuel burn in cruise. Use the Pawnee hopper to stow the tow rope, the glider's tail dolly and any other retrieval gear.

Glider pilots who are retrieved from an airport are charged for tach time at a rate determined by the MSC Board. Report the total tach time for the retrieve to the FOO, so the daily flight log can be updated.

Club policy does not permit retrieving a glider that has landed in a field.

## **8. At the End of the Day**

At the end of the day, coil up the tow line and place it in the hopper. Fill the Pawnee fuel tank, and report the fuel amount to the FBO. Fill out the Pawnee log. Clean bugs off the leading edges and windshield.

When putting the Pawnee in the hangar, do not allow anyone to push on the Pawnee propeller, propeller spinner or the wing leading edge. *Push only on the wing struts.*

Verify that all cockpit switches are turned off, and close the cockpit windows. Remove all trash; use the garbage bags provided.

## Appendix

### A. MSC History

The Minnesota Soaring Club was formed in the fall of 1959. The twenty-four men, led by the first president Charles Whitmore, labored for nearly a year to rejuvenate an old WW-II glider. The Schweizer TG-2 required about 3000 man-hours of labor before the first club flight was made September 2, 1960. The sailplane was initially tested with four auto tows. Then two aero tows for 95 minutes of flight time completed the FAA inspection.

MSC flight operations have always been located at Stanton Airport (formerly Carleton Airport), Stanton, Minnesota. The operation originally prospered, in part, due to the cooperation of the airport owners, Malcomb and Margaret Manual. In 1990 members of MSC and other pilots purchased the airport. Stanton Sport Aviation is committed to preserving Stanton Airport as a sport flying field. MSC flight operations continue to prosper thanks to the dedication and hard work of the members of Stanton Sport Aviation.

Although all of the original members were power pilots, the Club established an instructional program so that anyone could participate. The countless hours volunteered by the early instructors - Whitmore, Wastvedt, Holler, Edwards, Bringentoff - enhanced the Club development. Within ten years, MSC attained operational and financial stability enjoyed by few soaring clubs.

Original members of the Minnesota Soaring Club:

Rusty Bringentoff	Russ Christenson	Robert Clark	Robert Crane
Roy Dale	William Dean	John Edwards	George Ellison
Howard Glaefke	Frank Hetznecker	Harris Holler	Jack Horner
Wells Horvereid	Ken Kneen	Ed O'Conner	Lachlan Ohman
Douglas Olson	Harry Meline	Ken Perkins	George Shallbetter
Ell Torrance	Don Ullevig	John Wastvedt	Chuck Whitmore

## B. MSC Aircraft History

1959-64	Schweizer TG-2	2-place	Used	Chicago
1961-64	Schweizer 1-26	Single	Used	Dallas
1964-71	Schweizer 1-26	Single	Used	Minneapolis
1964	Schleicher Ka-7	2-place	New	Germany
1968-84	Schleicher ASK 13	2-place	New	Germany
1971	Schleicher Ka-8b	Single	Used	Tulsa
1974-83	Schreder HP-13	Single	Used	Dallas
1976-84	Piper PA-18 Super Cub	Tow plane	Used	Stanton
1978-83	Grob Astir	Single	Used	Texas
1983	Piper PA-18 Super Cub	Tow plane	Used	Stanton
1983	Schleicher ASK 21	2-place	New	Germany
1989-91	Schweizer 1-26	Single	Used	Minneapolis
1992-96	Schweizer 1-23	Single	Used	Maple Lake
1992	PZL SZD-50-3 Puchacz	2-place	New	Poland
1998	PZL SZD-51-1 Junior	Single	Used	Edina
2021	Piper PA-25 Pawnee	Tow plane	Used	Chilton AL
2022	SZD-50-3 Puchacz SOLD	-----	-----	Wellington CO
2022	Schleicher ASK 21 B	2-place	New	Germany
2023	Piper PA-18 SOLD	-----	-----	Clayton NC

## **C. FOO Checklist**

*This simplified checklist does not cover all aspects of the FOO's responsibilities. Before serving as FOO, please re-read Part 3 (Operations) and Part 4 (Field Operations Officer Guide) of the MSC Operations Guide, available at the MSC website.*

### **3-4 Days Prior to the Operation**

- ✓ Check the weather forecast.
- ✓ Check signups by students on Click n' Glide.
- ✓ Confirm that the instructor(s) and tow pilot(s) plan to be there.
- ✓ Consider making tentative arrangements for a second tow plane if soaring conditions are expected to be excellent.

### **Evening Prior to the Operation**

- ✓ Check the weather forecast.
- ✓ If the forecast is poor, confer with the instructor and tow pilot.
- ✓ Unless all are certain about poor weather, wait until morning to cancel an operation.
- ✓ Check signups by students on Click n' Glide again.
- ✓ Email the club that the operation is a go (unless canceling), and advise about questionable weather.

### **Morning of the Operation**

- ✓ Check the weather and the forecast before leaving for the field.
- ✓ Check for any applicable NOTAMs.
- ✓ If the weather/forecast is poor, confer with the instructor and tow pilot.
- ✓ If canceling the operation, email the club and update Click n' Glide.
- ✓ Arrive at the field by 8:00 AM.
- ✓ Put on the stylish day-glo vest.
- ✓ Offer to help the tow pilot move the tow plane out of the hangar.



- ✓ Ensure that gliders are pre-flighted properly, including positive control checks.
- ✓ Ensure that golf cart oil and fuel levels are checked. Verify that the golf cart and FOO cart tires have adequate inflation (i.e., kick the tires).
- ✓ Load a dozen water bottles in the FOO cart (especially on hot days).
- ✓ Supervise moving the gliders and carts out of the hangar.
- ✓ Before heading to the staging area, talk with John Quilling or Toby Hanson (designated airport operators) to confirm the choice of active runway, and to discuss the day's events, such as CAP operations, glider rides, power instruction or airfield mowing, and when the fuel pump will be turned off. If neither John nor Toby is on site, call John at 952-454-2859 or Toby at 952-292-7437.
- ✓ The Junior should always be brought to the staging area by noon, but without delaying instruction.
- ✓ Conduct an operational and weather briefing.

### **At the Staging Area**

- ✓ Try to be ready for first launch by 9 AM.
- ✓ Position the FOO cart a safe distance from the runway.
- ✓ Maintain a sterile zone extending 100 yards forward from the launch position.
- ✓ When maneuvering gliders to the flight line, do not rotate the glider about its main wheel, because doing so can dig holes in the turf. Instead, either make *very* wide circles, or place a sheet of sturdy material under the main wheel when rotating, while lifting the tail wheel. A plastic floor mat should be kept in the FOO cart for that purpose.
- ✓ Secure unattended sailplanes properly.
- ✓ Write your name and mobile phone number on the FOO cart whiteboard.
- ✓ If not already done, conduct an operational and weather briefing.
- ✓ Set up radios to monitor both 122.8 MHz and 123.3 MHz.
- ✓ Continuously monitor traffic in the pattern.
- ✓ Ensure that wing runners and retrievers are qualified.

- ✓ Check each member's qualification card prior to the member's first launch of the day in a club sailplane.
- ✓ Ensure that the Liability Waiver Agreement is signed before a visitor takes a ride in a club glider. If the visitor is under age 18, the parent/guardian must sign. Photograph the signature page of the signed agreement, email it to the treasurer or billing assistant (along with the day's flight log) and save the signed agreement in the FOO cart.
- ✓ Ensure that the proper pigtails are used for the various club and privately owned gliders. After launch, return a pigtail to its packaging (e.g., ziplock bag) or return it to the owner after the flight.
- ✓ If corn in the adjacent fields is tall enough to block your view of the cross runway, station a second signaler at the cornfield corner, where activity on the cross runway can be observed.
- ✓ Log takeoff/landing times and release altitudes.
- ✓ Manage the operation!
- ✓ Be proactive to make the operation safe. Don't hesitate to speak up.
- ✓ If the winds shift during the day, confirm with John Quilling or Toby Hanson (designated airport operators) any decision to change the active runway—prior to staging the operation at that runway. If neither John nor Toby is on site, call John at 952-454-2859 or Toby at 952-292-7437.
- ✓ When the wind shifts such that the downwind component (including gusts) is greater than 2 knots, it is time to change the active runway.
- ✓ If weather conditions require canceling the operation, email the club and update Click n' Glide.
- ✓ If no one is showing up to fly, email the club at least 2 hours before shutting down the operation.

## **Wrapping Up the Operation**

- ✓ Carefully return the gliders and carts to the hangar.
- ✓ Clean bugs and dirt from the gliders & tow plane.
- ✓ Remove batteries and put them on charge.
- ✓ Replace canopy covers.

- ✓ Put a weight on each glider's lowered wing.
- ✓ Make sure cart keys are in the off position.
- ✓ When all is shipshape, close the hangar doors.
- ✓ Stash the flight log in Clubhouse East.
- ✓ Photograph or scan the flight log and email it to [vjchouinard@gmail.com](mailto:vjchouinard@gmail.com).
- ✓ Send a recap of the operation to the club.

### **In Case of an Emergency**

- \* Do not hesitate to call 911 or render aid when circumstances warrant.
- ✓ Refer to the **MSC Emergency Plan** (Part 5 of the MSC Operations Guide). A printed copy should be in a FOO Cart drawer, but you can also read it at the MSC website ([mnsoaringclub.com](http://mnsoaringclub.com)) in the Library / Clubmember Documents folder.
- ✓ The **Stanton Airport Emergency Operations Plan** (also available at [mnsoaringclub.com](http://mnsoaringclub.com)) takes precedence, but does not adequately address how MSC members should respond in the event of an aircraft accident or incident at Stanton or elsewhere.

### **In Case of Overdue Aircraft**

- ✓ Verify that the aircraft hasn't already landed and been put away.
- ✓ Try to reach the pilot by radio, on both 122.8 MHz and 123.3 MHz.
- ✓ Call the pilot's mobile phone number. (All member phone numbers are listed in the roster at the club website, [mnsoaringclub.com](http://mnsoaringclub.com), in the Library / Clubmember Documents folder.)
- ✓ Ask other pilots aloft to try to reach the pilot by radio.
- ✓ If the overdue glider is transponder-equipped (club ships are), check online resources like [flightaware.com](http://flightaware.com) and [adsbexchange.com](http://adsbexchange.com).
- ✓ If the pilot cannot be contacted, and if there is reason to suspect the pilot may have landed out: call the FAA Flight Service Station (800-992-7433), notify Stanton airport management, and notify any MSC board member.

### **In Case of a Landout**

- ✓ If a club ship lands out, assemble a retrieve crew of at least 3 people, and coordinate retrieval with the club ship pilot.

*The current version of this document is at [mnsoaringclub.com](http://mnsoaringclub.com). A printed copy may not be current.*

- ✓ If a member-owned glider lands out, the pilot should already have made arrangements for retrieval—but if not, provide any assistance that may be needed.
- ✓ Members who land out in a club ship must submit a written report to the Director of Operations.

## **D. ACE Camp Roles and Responsibilities**

For many years MSC has annually hosted participants in the Minnesota Aviation Career Education (ACE) Camp. MSC instructors typically give some 30 glider rides to ACE campers on each of two weekdays in June. Running these operations smoothly and safely requires the coordinated efforts of many MSC volunteers.

The ACE Camp Coordinator (ACC) is an MSC volunteer whose efforts begin weeks before the ACE Camp operations. The responsibilities of the ACC include the following:

- Handling all communication with ACE Camp staff.
- Ensuring that liability waiver agreements have been signed by all participants (or, if under age 18, by the participant's parent/guardian) prior to the Camp dates.
- Scheduling the operations, in coordination with ACE Camp staff and the airport manager. In general, no more than 32 rides per day should be planned. The ACC and ACE Camp staff should anticipate possible weather cancellations, and try to pre-schedule makeup days or sessions.
- Coordinating activities with the MSC Chief Instructor and the airport manager.
- Recruiting and scheduling tow pilots and ground crew volunteers.
- Helping to direct the day's activities at the field.

It is the Chief Instructor's responsibility to recruit and schedule MSC instructor pilots for the ACE Camp rides.

The Chief Instructor and the ACC work together to recruit and schedule the Field Operations Officers (FOOs).

The FOO on duty is responsible for operational decisions on the field (e.g., suspending an operation due to weather, changing runways), in consultation with the tow pilot, participating instructor pilots and the airport manager, as may be appropriate.

In compliance with Stanton Airfield policy for glider operations, the FOO shall confirm with John Quilling or Toby Hanson (designated airport operators) the choice of active runway, prior to staging the day's operation or when changing the active runway later in the day.

For ACE Camp rides, the demonstrated crosswind capabilities of the aircraft should not be exceeded.

The decision to cancel a future operation due to forecast weather should be made as far in advance as possible by the scheduled FOO, in consultation with the tow pilot and instructor pilots. The ACC would then work with ACE Camp staff to try to reschedule the operation. The decision to cancel an operation would best be made no later than 12 PM on the preceding day.

## **E. Operations Guide Change Log**

### **Version 1.0 (2/12/2024)**

Initial release.

### **Version 1.01 (5/26/2024)**

In Part 2 (Appointment of FOOs, Instructors, Tow Pilots), added a requirement that FOOs must be at least 18 years old.

In Part 4 (Operations), added a new subtopic: Weights & Ballast.

In Part 4 (Operations) / E (Flying Preference) / 5 (Instruction), added a paragraph defining launch priorities during all-day weekday instruction when club gliders have been reserved.

In Part 5 (FOO Guide) / D (FOO Procedures & Practices) / 2 (Planning and Communicating), added a paragraph about arranging a second tow plane.

In the FOO Checklist, added a bullet about arranging a second tow plane.

### **Version 1.02 (6/17/2024)**

In Part 1 (Flight Regulations) / C (Flight Restrictions) / 5 (Aerobatics), cautioned members to stay away from Federal airways when performing certain maneuvers.

In Part 1 (Flight Regulations) / C (Flight Restrictions) / 7 (Cross-Country Flights in MSC Sailplanes), in the paragraph about flying the Junior cross-country during an ad hoc weekday operation when no FOO is in charge, added the requirement that at least one other member must be present to help move the glider in and out of the hangar.

In Part 1 (Flight Regulations) / C (Flight Restrictions) / 8 (FAA Regulations), cautioned pilots about violating the 6000' floor of nearby class-B airspace.

In Part 4 (Operations) / A (Ground Operations) / 1 (FOO Required), specified that a FOO need not be present when members are flying their own gliders during an ad hoc weekday operation.

In Part 4 (Operations) / A (Ground Operations) / 1 (FOO Required), in the paragraph about flying the Junior during an ad hoc weekday operation when no FOO is in charge, added the requirement that at least one other member must be present to help move the glider in and out of the hangar, and specified that the Director of Operations can authorize any member to fly the Junior during an ad hoc weekday operation without a FOO present.

In Part 4 (Operations) / E (Flying Preference), added section 10 (Demonstration Rides).

In Part 5 (Field Operation Officer Guide) / D (FOO Procedures and Practices) / 4 (Preparing for the Operation), added a provision that water bottles should be kept in the FOO cart and freely offered to members, especially on hot day, and that cases of water bottles should be maintained in the hangar by a volunteer appointed by the Director of Operations.

In the Appendix / C (FOO Checklist), added a bullet about loading water bottles in the FOO cart.

### **Version 1.03 (1/5/2025)**

Removed Part 2 (Appointment of FOOs, Instructors, Tow Pilots), moving its contents to the MSC Membership Guide draft.

*>>> Note that references to Part numbers in earlier entries in this Change Log are offset due to the removal of Part 2.*

In Part 4 (Field Operation Officer Guide), added a requirement that the FOO or a club member under the FOO's direct supervision must check the oil of each golf cart before it is driven.

In Part 4 (Field Operation Officer Guide) and in the FOO Checklist in the Appendix, noted that the FOO is also responsible for verifying that golf cart and FOO cart tires have adequate inflation.

Added "ACE Camp Roles and Responsibilities" to the Appendix.

### **Version 1.04 (4/14/2025)**

In Part 4 (Field Operation Officer Guide) and in the FOO Checklist in the Appendix, clarified club policy about qualification cards, specifying that it is the FOO's responsibility to check the qualification card before a member launches in a club glider. A member who does not present a current card with the requisite checkoffs would not be authorized to fly a club glider.

In Part 3 (Operations | Runway Selection), Part 4 (Field Operation Officer Guide), Part 6 (Tow Pilot Guide | Wind Considerations), and the Appendix (FOO Checklist, ACE Camp Roles & Responsibilities), defined or reiterated the Stanton Airfield policy on active runway selection for glider operations, as follows:

The FOO shall confirm with John Quilling or Toby Hanson (designated airport operators) the choice of active runway, prior to staging the day's operation. If the winds shift during the day, the FOO shall confirm with John or Toby any decision to

change the active runway, prior to moving the operation to that runway. If neither John nor Toby is on site, call John at 952-454-2859 or Toby at 952-292-7437.

In the FOO Checklist, specified that it is time to change the active runway when the wind shifts such that the downwind component (including gusts) is greater than 2 knots.

## **Version 1.05 (6/8/2025)**

In Part 1 (Flight Regulations) | B (Flying Qualifications) | Cross-Country Flight:

Noted that students pilots are not allowed to fly cross-country in club sailplanes.

Specified that a signoff by an MSC instructor on the member's Qualification Card is required to document that the member is qualified to fly a specific club sailplane cross-country.

In Part 1 (Flight Regulations) | C (Flight Restrictions) | Cross-Country Flights in MSC Sailplanes: Defined conditions for flying cross-country in the Junior during an ad hoc operation when there is no FOO on duty.

In Part 3 (Operations) | A (Ground Operations) | FOO Required:

Defined the requirements for flying a club sailplane (including the two-place ships) during ad hoc operations when no FOO is on duty.

Clarified the requirements (other than lift) for remaining aloft in a club sailplane during a scheduled operation after the FOO has left the airfield.

Specified that a solo student may fly a club sailplane during an ad hoc operation only if there is a FOO on duty. An instructor must be present on the field to observe the takeoff.

Removed a redundant section, "Cross-Country Flights in MSC Sailplanes", from Part 3 (Operations) | E (Flying Preference).

In Part 3 (Operations) | E (Flying Preference) | Instruction: Recommended that instruction flights not continue past about 12:15 pm if there are members on the ground waiting to fly the glider(s).

In Part 3 (Operations) | E (Flying Preference): Renamed the section heading, "Signing up for Instruction", as "Click n' Glide".

In Part 3 (Operations) | E (Flying Preference) | Signing Up for Instruction (now renamed "Click n' Glide"): Added the following clarifications:



Pilots not seeking instruction are encouraged (but not required) to sign up as Licensed Pilots in Click n' Glide.

Members are encouraged to indicate a specific glider preference (e.g., the Junior) when signing up in Click n' Glide, but doing so does not reserve the glider.

Do not use Click n' Glide to sign up for a flight review; contact an instructor to make arrangements.

In Part 4 (FOO Guide) | B (Appointment): Excerpted FOO qualifications (e.g., must be at least 18 years old) from the MSC Membership Guide.

In Part 4 (FOO Guide) | C (Obligation to Serve as FOO): Noted that a member who is unable to do FOO duty on an assigned or scheduled date is responsible for finding a replacement or notifying the Director of Operations.

In the FOO Checklist: Advised against rotating a glider with its main wheel stationary, to prevent turf damage.

### **Version 1.06 (7/15/2025)**

In Part 3 (Operations) | F (Field Flight Patterns): Replaced the “pattern boxes” with a cylindrical landing pattern airspace within which pilots should be proceeding directly to land if they are below 2400' MSL. The cylinder has a radius of 1.5 statute miles, centered on the runway intersection.

In the FOO Checklist, advised using a second signaler if corn in the adjacent fields is tall enough to block the view of the cross runway.

In the FOO Checklist, added a reminder to ensure that the proper pigtail is used.

### **Version 1.07 (2/3/2026)**

In Part 1 (Flight Regulations) | B (Flying Qualifications) | Student Solo Flight (Operations): Repeated this requirement in Part 3 (Operations) | A (Ground Operations) | FOO Required: “A solo student may fly a club sailplane during an ad hoc operation only if there is a FOO on duty.”

In Part 3 (Operations) | E (Flying Preference) | Click n' Glide: Advised that students should contact the instructor if signing up for instruction later than 8 AM of the day prior.

In Part 3 (Operations) | E (Flying Preference) | Demonstration Rides; in Part 4 (Field Operation Officer Guide) | D (FOO Procedures and Practices) | 7 Coordinating the Operation; in Appendix C (FOO Checklist); and in Appendix D (ACE Camp Coordinator): Specified the new policy that the FOO is responsible for ensuring that the Liability Waiver Agreement is

signed before a visitor takes a ride in a club glider. If the visitor is under age 18, the parent/guardian must sign. The FOO is responsible for photographing the signature page of the signed agreement, emailing it to the treasurer or billing assistant (along with the day's flight log), and saving the signed agreement in the FOO cart.

In Part 4 (Field Operation Officer Guide) | D (Procedures and Practices) | Consulting Airfield Management, and in the FOO Checklist: Advised that FOOs should find out when the fuel pumps will be turned off in the morning, and advise the tow pilot accordingly.