

Harris Hill Soaring Corporation

Auxiliary Field Training and Operation

Two recent sailplane accidents have identified a need to provide training to land at the auxiliary field for all glider pilots. Recommendations from those accident reports have been adopted by the board of directors. HHSC will provide training for all student pilots prior to solo, and all rated pilots before acting as pilot-in-command of club aircraft.

There are legitimate concerns involved with operating in and out of the auxiliary field for training purposes. Most concerns surround towing out of the field; others involve insurance coverage. There is certainly risk involved with aux field operations, but there is also substantial risk involved in not training our pilots appropriately to handle this contingency. This is evidenced by our last two accidents.

The purpose of this document is to consider the various risks involved with aux field training. The operational constraints listed below are aimed at eliminating, mitigating or reducing these risks to an acceptable level (low to medium). By limiting If, Who, When and How we conduct aux field training, we will accomplish this objective. In short, we will smartly choose the time and manner in which we conduct aux field training to manage risk to an appropriate level. When in doubt, it is always best to postpone training to a time when conditions are more favorable.

Our insurance policy has been reviewed and it is vague overall. However, it has been determined that we are covered for aviation operations in and out of the aux field. The policy states that we are covered for all premises we own, rent or occupy. It lists "Harris Hill gliderport and all premises necessary or incidental to the aviation operations of the named insured". It further defines aviation operations as "All operations arising from the ownership, maintenance or use of locations for aviation activities including that portion of roads or other accesses that adjoin these locations, and includes all operations necessary or incidental to aviation activities".

The following risk factors have been considered and constraints applied:

Weather – High density altitude during hot summer days can reduce takeoff performance significantly. Aux field training should be done in the coolest temperatures available (morning and evening) and never be accomplished when temperatures exceed 85 degrees. No tailwind component is acceptable for takeoff. Maximum crosswind component will be 10 knots. Be aware of the surrounding airmass. South winds will produce sink along the ridgeline, and surrounding convective activity can produce sinking air along the takeoff path. Both conditions may significantly reduce climb rate after takeoff. Calm or light wind days early or late in the day to avoid convective activity are preferred.

Aircraft – 2-33's and Pawnee's ONLY will be used for aux field training. The maximum Pawnee fuel load will be a half tank. Outside of training, all Schweizer gliders may be towed out of the aux field in accordance with this document. If conditions are not favorable, the glider should be tied down overnight or until conditions are favorable or trailered back to Harris Hill. ASK-21's and privately owned gliders will not be towed from the aux field under any circumstance and should be trailered. The Super Cub may NOT be used to tow gliders out of the aux field.

Field condition – The field should be inspected via foot or vehicle by the tow pilot and/or glider instructor prior to commencing training. Any hazards such as woodchuck holes or standing water should be identified, marked and/or remedied prior to commencing training. The field is mowed at least monthly during the summer months. If the grass is determined to be too high or the field too wet, training should be delayed until conditions permit. Grass and weeds up to a foot high are generally acceptable.

Pilots – The primary objective for student, private and commercial pilot aux field training is proficient patterns and landings, not takeoffs. When taking off from the aux field, the weight of the glider should be reduced to the maximum extent possible. This means that conditions may necessitate that only one person (the CFI-G) be in the glider for takeoff. When a Schweizer glider lands in the aux field as a contingency, it should be flown out by a qualified CFI-G trained in accordance with this document.

When training a new CFI-G, conditions should permit both the CFI-G of record and the upgrading CFI-G to be in the glider for takeoff. Only CFI-G's who have been trained in accordance with this document will be permitted to conduct aux field training and operations.

Only experienced tow pilots (see the tow pilot ops manual revision for the definition) who are trained in accordance with this document will be permitted to conduct aux field operations. Only designated Harris Hill CFI-A's will be permitted to conduct tow pilot aux field training.

Landing – See pattern and landing techniques in the Aux Field Training video on the HHSC website members section. During training, it is preferred that the student demonstrate a safe pattern and landing to both the east and the west as these approaches are both unique however, a minimum of one safe pattern in either direction is acceptable.

Takeoff – In calm winds or easterly winds the preferred takeoff direction is to the east. This eliminates obstacles and allows the towplane to drift left, away from terrain and over landable fields immediately after breaking ground. That being said, the wind prevails from the west and a takeoff to the west is often necessary. This presents the risk of tall trees, powerlines and limited rope break options. Typically, a small check to the right after breaking ground is required to avoid the tall trees with the flight path passing over the powerlines. A tailwind is not acceptable for takeoff in either direction. The glider should be positioned **ALL** the way back in the field for takeoff. Do not waste a single foot of available runway out of laziness! The tail of the glider should be sitting in the high grass just outside of the mowed area. If towing a 2-33A, two line workers should be present, one to run the wing and the second to hold the tail on the ground so that the tow pilot can apply maximum power quickly when commencing takeoff roll without slamming the glider tail on the ground. Tow pilots should consider applying half flaps late in the takeoff roll to lessen weight on the wheels and get airborne as soon as possible. Glider pilots should get airborne as soon as possible to reduce drag on the towplane.

Rope break options – The tow rope and Schweizer adapter should be closely inspected before conducting aux field operations. The best rope break options are present early in the year before the corn grows too high. Typically, the corn does not present a hazard until August but landing in high corn is always preferable to landing where limited space, trees or obstructions are present.

Taking off to the east in a left climbing turn will present many landable fields until a left-hand pattern can be safely made back to the aux field. When taking off west, there is a landable field directly across the Route 352 in the case of a low altitude contingency. After clearing the trees and powerline, a left 90-degree

turn offers multiple landing options down the valley to the south. One of the options is a large field between the river and Route 352 at the end of the ridgeline where a straight-in approach is easily possible. This field is typically planted with corn (occasionally beans) and becomes less desirable later in the year. Fewer options are available to the right and north. After a 90-degree turn, an area of soccer fields directly to the west of Route 352 provides an opportunity for a straight-in approach. These fields can be occupied with people, and also have hazards such as soccer goals and structures along the edges and should be used only as a last resort. If altitude permits, the best option is to continue the right turn and land back in the large area of fields to the north of the aux field. These fields are typically planted with corn (occasionally beans) and become less desirable later in the year. To this point, aux field training should be maximized early in the season before high corn becomes a hazard.

Training Program – Only CFI-G's trained in accordance with this document by another qualified CFI-G will be authorized to conduct aux field training. This training will include an academic discussion guided by this document, followed by at least one proficient supervised landing and takeoff from the aux field. It is preferred that a proficient pattern and landing be conducted to both the east and the west if possible as these approaches are both unique. For pattern and landing techniques, see the Aux Field Training video. Training will keep a list of qualified CFI-G's who are authorized to conduct aux field training.

Only experienced tow pilots who are trained in accordance with this document by a designated Harris Hill CFI-A will be authorized to conduct aux field operations. This training will include an academic discussion guided by this document, followed by at least one supervised landing and tow takeoff in the Pawnee from the aux field. The Super Cub may be used with upgrading tow pilots for initial orientation with a CFI-A without a glider however, the upgrading pilot will still need to accomplish an observed landing and tow takeoff in the Pawnee. Again, the Super Cub may NOT be used to tow gliders out of the aux field. Only designated Harris Hill CFI-A's will be permitted to conduct tow pilot aux field training. The tow pilot committee will keep a list of qualified tow pilots who are authorized to conduct aux field operations.