

SAMAA safety guidelines for R/C Slope Soaring

The model aircraft activity of Slope Soaring may entail social soaring, slope aerobatics, PSS (Power Scale Soaring), duration, slope racing (F3F), dynamic soaring, etc. This may be casual or organised, and may involve competitive activity.

Exactly like other known aeromodelling activities, RC Slope Soaring must be done with care, foresight, and consideration, since it may be dangerous to pilots and spectators. Here are some basic guidelines for the safe operation at R/C slope soaring sites. The onus for safety is placed upon the pilot at all times.

Slope Soaring must only be performed at SAMAA-registered sites. If the site is not registered, it may be used with the permission of the site owner, and by obtaining permission from the SAMAA compliance sub-committee.

Preparing for a flying session

1. Check the weather forecast first. Do not leave for the site if the weather is poor, or if the forecast is indicating adverse weather conditions, or an approaching front. Several applications are available through the internet to consult.
2. Some flying sites may not be reached by motorised transport. Wait for a colleague where the site requires walking some distances through bush or fynbos. Be mindful of wildlife and snakes.
3. Take along with you enough supplies, like drinking water, food, sun protection, mobile phone, and a basic first aid kit. Know where the nearest emergency centre is, and keep the telephone number in your mobile phone contacts.
4. Beware of wind-chill! The real-feel temperature is much lower in windy conditions.
5. Check the slope glider/model and make sure that:
 - the airframe is free of damage
 - the covering is intact and not loose in critical places
 - the on-board battery is in good condition, and that it is fully charged
 - all connections are good, and servos are not binding
 - the switch is functioning flawlessly
 - all linkages, clevises, control horns, and servo arms are secure
 - the transmitter battery is fully charged, receiver and servos are mounted properly, and are operating correctly.

These few checks can save a lot of frustration at the flying site. One goes to the site with the purpose of flying, not playing mechanic.

Arriving at the slope soaring site

1. Even if you have been flying at a particular flying site often before, it is always good practise to do a walk-around to see if anything has changed since a previous visit. Has there been a veld fire? Have vandals destroyed property? Has rubbish been illegally dumped at the site? Advise the site/property owner of this, lest the club/fliers be accused and ultimately denied access to the site, or lose flying privileges.
2. For those pilots flying on 53, 54, and 35MHz frequencies, ensure that you use a frequency control board, and please coordinate with other pilots for the use of shared frequencies. Of course 2,4GHz eliminates this requirement.
3. Always perform a range check at the start of a flying session, even if a model has been successfully flown several times before!
4. If you are visiting and using the site for the first time, take the trouble to familiarise yourself with the launch location and conditions, and the landing area, and approach direction and conditions. For certain wind directions there may be rotor conditions or dead air. Never hesitate to ask for advice from experienced pilots who are familiar with the site and conditions.

Before launching

1. Before switching on a transmitter, ensure that the frequency is clear, and clearly announce your intentions.

2. Carefully observe the wind direction, strength, and consistency. If necessary, seek advice from a more experienced pilot.
3. Switch on both the transmitter and receiver. Verify that the transmitter and receiver batteries are of adequate capacity. Make sure all the settings on the transmitter are correct, trims are neutral, and that all control surfaces are operating in the correct direction. Check all the servos and ensure that they are fully functional and not binding.
4. Do a quick check of the airframe. Is the CG correct? Are the wings, tail, stab, hatches, covers, and canopy, fixed properly? Are the linkages moving freely?
5. Make sure that the airspace is clear before launching. Announce to others that you are about to launch. If necessary, wait for other pilots to vacate the launch area, and for other gliders to move away from the immediate launch airspace.
6. When the wind is consistently strong or gusty, or the model is particularly large, it may be difficult to launch with one hand, while holding the transmitter in the other hand. Seek help from an experienced flier to help with the launching.

During flight

1. Avoid flying over people at all costs, especially at low level. Never fly a model towards people or property. Aerobatics, or high-speed approaching manoeuvres must not be performed towards spectators, officials, pit areas, or property (cars, tents, etc.). Don't fly beyond your capabilities. If you are in trouble, or feel that you are pressurised, ask for help from experienced pilots immediately.
2. Take careful note of other gliders that are flying with yours. If the airspace is crowded, fly a simple course and avoid doing aerobatics, until the airspace is clear to do so. Clearly communicate your intentions to other pilots.
3. Pilots may agree to implement simple practical operations during flying sessions, depending on the prevailing conditions. The objective must in all cases be to improve safe flying practises. As a simple example, mid-air collisions may be avoided if all gliders are flown, say, in a clockwise circuit when below a certain altitude.
4. Gliders may be able to fly for long periods in slope lift, but pilots may become fatigued, and batteries may get drained with continuous operation. Don't fly too long without taking a break, to also allow others to share the facility. Get some rest and check your equipment during the break.
5. Don't fly too late in the afternoon, when the visibility may be low and conditions are hazy, especially at coastal sites. Should there be an accident, or a glider is lost, it may be hazardous to search for a model, or the pilot. Advise other pilots if you are going to search for a lost glider. Take with you a mobile phone and enough drinking water. Ask someone to accompany you. Be aware of the terrain.
6. In case of a search, ensure there is communication with someone who took a general bearing of the last position of the model, so that the search may be conducted safely, and in the general area.

Landing

1. Announce to other pilots that you are going to land. If you are flying and hear a landing call, please give way to the landing aircraft, and avoid flying into the landing area until it is safe to do so.
2. Make sure the landing area is obstacle-free before landing. If there are pilots in or near the landing area, politely request them to clear the area to enable you to land your glider.
3. If you are doubtful of your ability to land a model, ask a more experienced pilot for help.
4. Retrieve your model directly after landing, and vacate the landing area.

General

1. Respect the environment at the flying site. If it is located in a nature reserve or national park, stick to the footpaths. Be aware of chacma baboons and other wild animals.
2. Never visit the site alone. You may be a target of criminal elements, or find yourself in an unsafe situation with no help at hand. With other airport activities in the vicinity, you have no way of managing this on your own.
3. Ensure that your vehicle is secure and valuables are out-of-sight of opportunists. Park your vehicle sensibly and don't obstruct other regular traffic. Take care when crossing roads.
4. Provide shade for yourself in hot, sunny conditions, and for your equipment.
5. Be on a constant lookout for changing weather conditions.
6. Ensure that your SAMAA membership and club membership is up-to-date.
7. No power flying is allowed from registered slope soaring sites. Electrics may be used, with permission from the club management.
8. No alcohol or inhibiting substances are permitted by pilots, prior to or during flying activities.

9. Do not litter at the site, and remove all litter after each flying session. Ensure cigarettes are extinguished, to prevent veld fires.
10. In all cases, full-size aircraft have absolute right-of-way. When full-size traffic is observed to be near or approaching the site, try to land immediately, or at least proceed to an altitude and position where there is no risk.
11. Some sites are shared with paragliding and hang-gliding activity. In regular cases, a simple operating procedure must be established and agreed by all parties, and a signed agreement must be available. Safety is simply not negotiable. As soon as other activities are commenced, the slope soaring pilots must delegate a spotter, to coordinate movements between the gliders of slope soaring pilots, and other users sharing the airspace.
12. In cases where a particular site allows operation from two locations, there must be a clear procedure in place, and it must be unconditionally adhered to by all parties. There must not be a clash of airspace or over-flying of persons or property. There must be adequate and agreed communication, and functional frequency control.