

## The basics of a paragliding accuracy target approach

The aim of an accuracy target approach on a paraglider is to have a long and smooth final glide on to the target with a half-brake setting. Big brake movements or low-level turns on finals are not good for a target approach and will probably end in a big distance score. Paragliding accuracy is about setting up at altitude and getting on to the correct final glide in good time. Paragliding accuracy is not about flying in deep brake although this can be a useful 'get out of trouble' technique for experienced pilots when matters do not go as planned.

### Terms

A term used a lot in accuracy is the 'cone of possibility' and this is marked out by a two glide angles. One glide angle is the steepest possible one that will get you on to the target using a maximum brake without stalling; the second is the shallowest possible glide angle that will get you onto the target with no brakes applied. If you can place your paraglider in between these two glide angles and hence in the cone of possibility you have a good chance of hitting the target. It should be noted that the angle of the cone of possibility is bigger in high winds than low winds and therefore pilots find it harder to hit the target in lower winds. Another way of looking at this issue is that in low or nil-wind conditions it does not seem to matter what amount of brake you have on - you still end up landing at the same point.

The terms 'hot' and 'cold' are used a lot in accuracy. Hot means that you are approaching or have passed the steepest possible glide angle that will get you on to the target and the chances are that you will have a lot of brake on. Cold means that you are probably going to fall short of the target and you need to get the brakes off. In terms of accuracy it is better to be hot than cold as you can possibly do something about being too hot, but if you get too cold there is nothing you can do about it and you will fall short of the target. Judging when you are hot or cold comes with practice and experience. For beginners there is the 'head up - brakes up, head down - brakes down' philosophy, whereby if your head moves up as you are looking at the target you are getting colder and if your head moves down you are getting hotter. But with experience you can tell very quickly if you are hot or cold.

### Approach plan

Assuming that you have sufficient height, a six-stage target approach plan can be used whether the approach is from a tow launch or a hill launch. The first stage is to turn to face the target in a hot position upwind of the cone of possibility. By doing this you can be certain that you have not gone too far downwind and got into a cold position that you can't get out of. Also you also have some tolerance if you have misjudged the wind speed or the wind chooses to pick up during your flight. Choosing the distance downwind of the target to turn to face it is generally dependent on the wind speed. Assuming that you have sufficient height you can turn into wind about 100 metres downwind of the target in nil wind conditions. If there is a 15mph wind you can turn into wind about 10 metres downwind of the target. Even if you have lots of height, and in theory could go a lot further back than the above distances, it is best not to as it is easy to lose concentration and drift into a cold position.



The second stage is to S-turn down into the cone of possibility. Every time you face into wind you can assess how hot you are. You can leave the S-turns for finals at any point and not necessarily into wind. The essential aspect of S-turns is not to travel forwards towards the target. This means that in low winds the S-turns have to be big sweeping turns. If you perform lazy S-turns and allow your glider to travel forwards towards the target you will most likely overshoot.

The third stage is to turn hot onto the final glide ('finals') but within the cone of possibility i.e. close to the steepest possible glide angle. The fourth stage is to apply a lot of brake and this will take you into a colder part of the cone of possibility. With this brake setting you will get to a point where you feel that you will fall short of the target if the brakes are maintained. Stage five is to slowly ease the brakes off to get the glider flying faster. By doing this you should have achieved the aim of a target approach i.e. gliding towards the target on a long and smooth finals with small brake movements from the half-brake position.

Stages three to five may seem to overcomplicate the target approach, however it gives you confidence

that you can control your destiny on brakes alone without further turns, and it also overcomes the problem of pilots hunting for the correct brake setting. You can often see pilots going through cycles of applying brake then letting it off again, when one brake setting would have done.

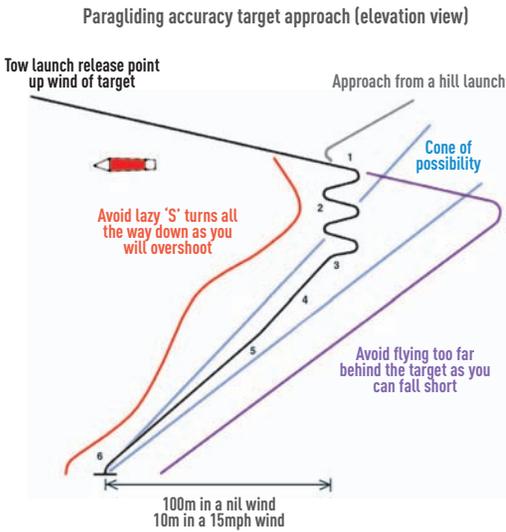
In stage six it is best to allow the glider to get hot over the target in the last few feet of the flight so that you can flare on to the target - and preferably on to the electronic pad. Stage six avoids you 'flying your eye to the target' whereby you forget that your undercarriage is approximately five feet below your line of vision and your feet touch down short of the target.

As stated earlier the above, six stages are only appropriate if you have sufficient height. If you have little height to set up then you have no option but to go straight to stage three which is to turn in hot within the cone of possibility. This requires a good assessment of the wind speed and good judgement of when to turn into wind; again this becomes easier with experience and practice. The wind speed can be assessed before you take-off, but during your flight there are other indicators that you should be looking out for. On a tow launch the rate of ascent



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1. Turn in hot up wind of 'cone of possibility'.
2. 'S' turn without travelling forwards into the 'cone of possibility'
3. Turn in hot onto finals
4. Hold glider back in deep brake until you feel you will fall short.
5. Faze brakes off smoothly and start a long and smooth finals at about half brake.
6. Get hot over the target in the last few feet of flight to avoid 'flying eye to the target'.

gives a good indication as well as your downwind ground speed after release. Windsocks and streamers also give a good indication of wind speed, and you need to familiarise yourself on how these direction indicators react with wind speed.

The above approach plan describes the basics of a target approach, however there are a lot of other aspects that can upset an approach such as wind gradients, thermals, effects of a hill ridge lift. These will be the topic of a further article.

FEATURE BY ANDY WEBSTER

## CIVL Plenary Meeting

This year's CIVL Plenary Meeting held in early February in Talloires, near Annecy, was always going to be lively, with some controversial issues on the agenda from the hang gliding and paragliding XC disciplines. The report on the European Cup, made on behalf of organiser Matjaz Feraric of Slovenia, caused some outcry among the delegates. That we ran six successful events in 2006 with another six planned for 2007 was not a problem, but the recommendation to change the name to the Paragliding Accuracy World Cup raised some comment. Delegates understood the reasons for the change, reflecting the broader appeal of the series and to raise the profile, but some were concerned that there might be confusion with the PWC and asked whether we needed permission from the PWC organisers. It was swiftly pointed out that the FAI - CIVL, being the highest international airports authority, was empowered to endorse this recommendation, which it did!

The Paragliding Accuracy subcommittee has finally broken the three-year deadlock on whether a light harness touch should continue to be scored as a 'fall'. Although the detail has yet to be thrashed out, we hope during the World Championships in Lithuania in February, we have managed to secure a rule change which will allow us to trial a new scoring system in Category 2 events during 2007. The results will be analysed; any subsequent rule changes agreed can be in force prior to the

European Championships in Serbia in 2008. This is a significant step and should make a major contribution to maintaining safety standards. Pilots will no longer feel it necessary to change to lightweight harnesses or to remove back protection to fly Accuracy competitions. It should also encourage more XC pilots to compete more regularly as they can fly their normal equipment.

Another important result of the Plenary meeting was acceptance of Croatia's bid to host the 2009 Paragliding Accuracy World Championships. The subcommittee report highlighted that new FAI Category 2 competition organisers from Japan and Turkey contributed to growth in our discipline, with nearly 200 pilots from 21 countries now listed on the WPRS. The Judging Seminar programme for 2006 was successful despite top trainer and Chief Judge Andy Cowley being despatched to Iraq for eight months. The very competent Nikki Spence and Liz Lawrence jumped in to run seminars in Lithuania and Japan. In all, 33 people from four countries attended the training sessions and another ten benefited from further training/coaching during the competitions. The seminars resulted in another 27 people added to the International Judging roster. A budget for Judging training seminars in 2007 was accepted. The plan is to run a high level seminar alongside the World Championships in Lithuania, with further seminars possible in Italy, Serbia, Turkey and the US.

International Judging Logbooks have now been distributed and the feedback is good. An International Judging Database has been designed and we hope it will be launched on the CIVL website over the next couple of months. It needs to be integrated with the recently-updated CIVL database to provide an interlinked system covering pilots, organisers, officials, competitions and the WPRS. We also agreed that with immediate effect competition organisers should make a log of all re-flights awarded, with the reason given. This data will be analysed at the end of the year with the view to simplifying and tightening up re-flight rules.

The subcommittee also proposed minor corrections and clarifications to the Section 7C rule book. Details will be available on the CIVL website with the minutes.

Just before the subcommittee meeting there had been a late flurry of e-mails on setting up Paragliding Accuracy records. The Records and Badges area has just been revitalised within FAI and good ideas will be welcome - a task for the coming year!

The subcommittee operates primarily via discussions held at meetings during the year and by e-mail, culminating in a meeting just before the Plenary. Unfortunately, very few of the subcommittee members or contributors to the ongoing discussions attended the final meeting. It is important to respond to the e-mail discussions as these views make a major contribution to what can be recommended for change. Poor or late response means we cannot make progress on important issues.

REPORT BY LOUISE JOSELYN

## Birdwings Classic Accuracy meeting

Details of the annual Birdwings Classic Accuracy competition have now been finalised. The event will run from July 21st - 22nd at South Cerney. The contact is Arthur Bentley (arthur.bentley@virgin.net).



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