

Target approaches in hill airflows

Part 2: Andy Webster looks at flying in air with a downward component created by the terrain

Don't worry, this is not about flying in lee rotor. But there are situations when pilots can find themselves flying in air that has a downward component when landing downwind of a hill. This is purely due to the wind following the hill profile and is the opposite effect to ridge lift.

Landing downwind of a hill

Even the smallest and shallowest hills can generate airflow with a downward component that decreases a pilot's glide angle and usually results in falling short of a target. This effect happens local to a hill and therefore at altitude there is no sense of the sinking air below. It is only when a pilot gets close to a hill that the decreased glide becomes apparent, and then it is probably too late to do anything. I attended a competition in Italy where the landing zone was conveniently situated downwind of a small hill. There were no issues flying above the landing field until approximately 200ft, when it felt like stepping into an elevator. The only way around this is to fly into what seems to be a hot* position and expect sink below a certain altitude.

* 'Hot' means a pilot is most likely to overshoot a target.

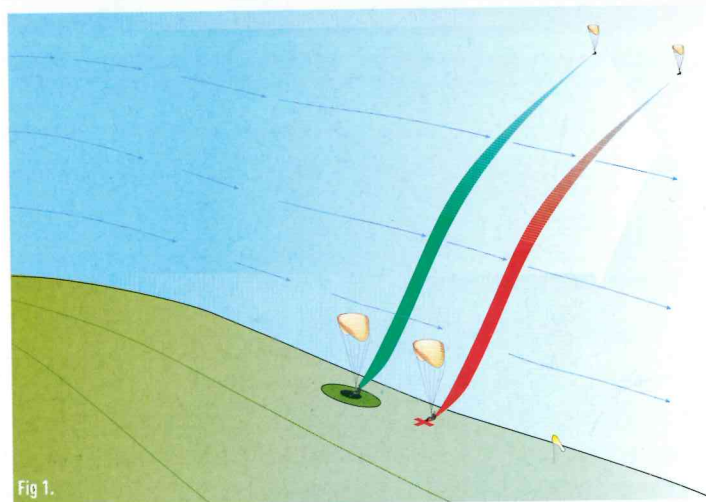


Fig 1.

In Fig. 1 the red line shows a pilot who has based his final glide on the airflow at altitude only to hit the sinking air below and fall short. The green line shows a pilot who has anticipated the sinking air below and set up on a glide that would have initially caused him to overshoot the target.

Landing on top of a hill close to a steep edge

This may sound a little exceptional and not the best place for a target, however Osven in Slovenia can provide such an experience. Likewise, flying close to gullies can have a similar effect. Here the airflow follows the hill profile and creates a lot of sink due to the steepness of the hill. As the wind speed increases so does the sink. Here you have avoid the sinking air at all costs and it is best to approach the target out of wind.

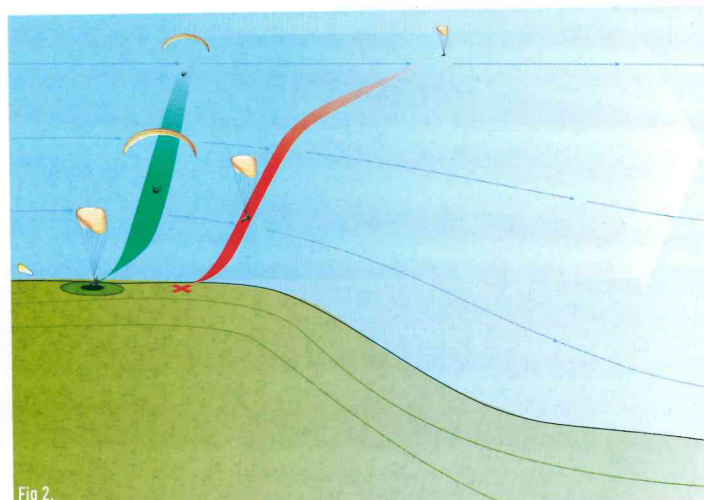


Fig 2.

In Fig. 2 the red line shows a pilot who has flown into the sinking air and fallen short of the target. The green line shows a pilot who has avoided the sinking air by approaching the target out of wind.

CIVL Plenary Meeting

Proposals prepared by the Paragliding Accuracy Subcommittee were accepted at the CIVL Plenary meeting that took place on February 20th - 21st in Lausanne, Switzerland. The Paragliding Accuracy Subcommittee has 13 members from nine countries. The UK has four members: Louise Joselyn, Nikk Spence, Andy Cowley and Andy Webster. There had been lots of e-mail discussion putting the 2010 proposals together but there are no major changes to report. The biggest change is that the judging code has been overhauled and strike judges have been removed from the judging team. Also, as from January 2010, pilots who enter Category 1 competitions must have helmets designed in accordance with EN966 'Specification for helmets for airborne sports,' i.e. no climbing helmets, etc. Kamil Konecny of the Czech Republic has taken over as Chairman of the Paragliding Accuracy Subcommittee from Jurij Vertacnik. Full details of the proposal and minutes can be found on the fai.org website.

2010 Accuracy Calendar

May

22 - 23 European Classic Accuracy Grand Prix Persan Beaumont, France Arthur Bentley arthur.bentley@virgin.net

June

4 - 7 Paragliding Accuracy World Cup Kuala Lumpur, Malaysia Basir Rahman www.paraglidingmalaysia.com

5 - 6 National Paragliding Accuracy Championships Shropshire/Wales Chris Haynes www.beyondextreme.co.uk

July

24 - 31 FAI European Paragliding Accuracy Champs Inonu, Turkey Hakan Cici www.pg-european2010turkiye.com

August

6 - 8 Paragliding Accuracy World Cup Ravna Gora, Croatia Zdravko Jakop www.let.hr

14 - 15 Paragliding Accuracy Pre-World Champs Czech Republic Kamil Konecny kamil.konecny@post.cz

20 - 22 Paragliding Accuracy World Cup Bosnia-Herzegovina www.pgawc.org

28 - 30 National Classic Accuracy Championships Warlingham, Surrey Andy Shaw andy@greendragons.co.uk

September

4 - 5 European Classic Accuracy Grand Prix Neumansdorp, Holland Arthur Bentley arthur.bentley@virgin.net

October

1 - 3 Paragliding Accuracy World Cup Stubaital, Austria Alpen Paragliding Center www.alpen-paragliding-center-stubai.at