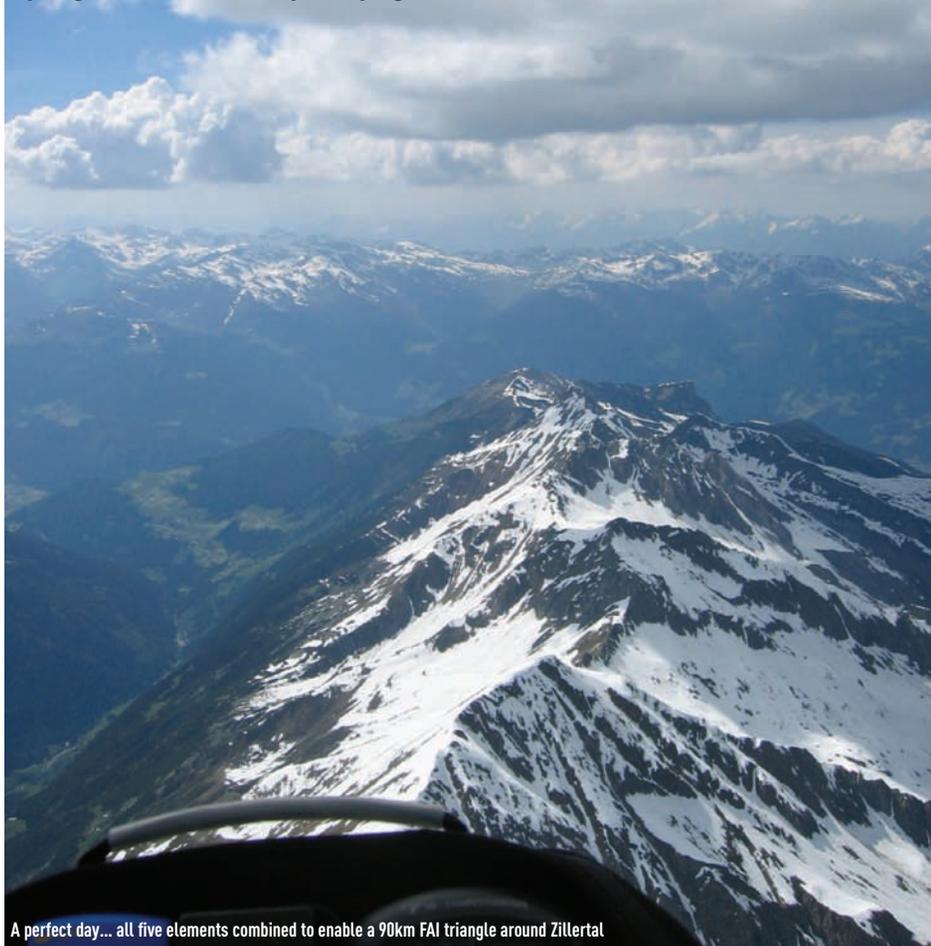


Understanding the Alps

Kelly Farina begins a new series to help you get the best from Alpine flying



A perfect day... all five elements combined to enable a 90km FAI triangle around Zillertal

Part 1: The perfect day

Welcome to the first part of a new series of short articles. It's going to be mainly about Alpine XC flying, the valley wind systems and how to stay safe out there.

I won't go into too much detail about equipment, as I trust most pilots are happy with and know the kit they're flying. But one thing I'd would like to stress is the importance of getting a good, comfortable position in your harness for long flights, and that you can easily use your speed system so you aren't just a trim-speed warrior.

I'll start at the beginning. In this short piece we'll discuss the ingredients of a good day. The complete series of articles will be available on my website in the form of a blog, and pilots can comment on the articles and leave questions if they wish.

What makes a good day?

Not every day in the Alps is good for 100km. We need a certain pattern or chain of events to happen so that the playground is working in our favour for a long-distance flight. It's not just blue sky and light winds.

I believe there are five main elements to a good day. They are all pretty self-explanatory so I won't go into too much detail on each.

Sun or UV. We need it to heat the Earth's surface, creating columns of rising air that we can use to gain sufficient altitude to glide to the next thermal or hot spot.

Light winds at altitude. This allows us to fly in all directions and to fly back home on an out-and-return or triangle flight. More importantly, strong winds and big mountains are a recipe for rotor and unpredictable turbulence. Lighter winds make for a more comfortable flight.

Strong lapse rate. Instability allows thermals to leave the ground regularly. Inversions will slow thermals down and make the day slower so we can't fly as far. Inversions also make for a rough ride as we approach them.

Air pressure. If it's too high the thermals could be weak, unpredictable and not leaving the terrain as often as we need. If it's too low then the day has a bigger potential to overdevelop and end the flight early.

Humidity. If the air is too dry then there will be blue thermals and the sky will give few clues as to where to search for the next climb. It's still fun but much more challenging. If the air is too moist there's a big chance that the sky will overdevelop early, causing spread-out, cutting off the sun. Worse, thunderstorms could form.

If we've got all five of these elements then 100km+ could be on the cards. However this means launching early and flying fast. For our guided groups I like to start when there is a good chance of staying up and would maybe set a 60 - 80km route on a day where the crack local pilots would be pushing 240 - 260km.

These five elements also create the optimal conditions for a strong low-level flow to be drawn through the valleys. This is known as the valley wind. Next month I'll explain how this flow is created. It's important that pilots are aware of this. Being able to predict strength and direction enables you to find a safe, easy path up and avoid nasty, turbulent lee sides.

For more info on Alpine XC and thermal training visit www.austrianarena.com. To leave comments on any of the articles visit www.austrianarena.com/blog.

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