

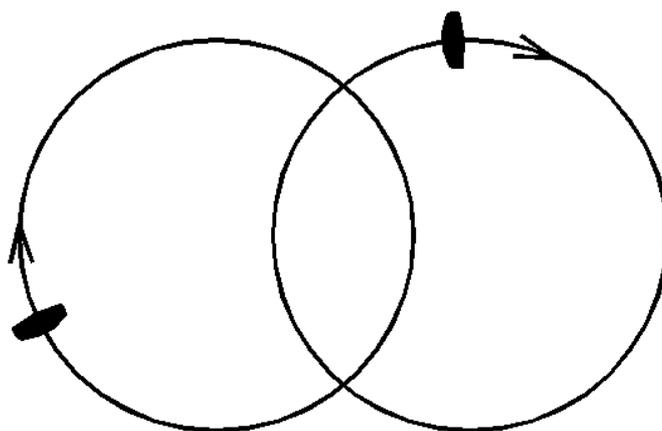
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Thermalling With Others - Converging Cores - Nigel Page

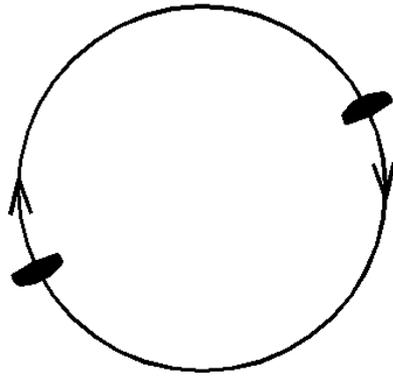
What many pilots think of as a thermal is usually just a “core” of relatively strong lift in an area where bits and pieces of air are rising at different rates to form the whole thermal. Thermals can be very messy things and it is not unusual for two pilots to be thermalling next to each other climbing at about the same rate. i.e. We can have two cores of similar strength.



Cores which are close to one another frequently drift together and converge. If both these pilots just stick to their cores they will probably end up like this.

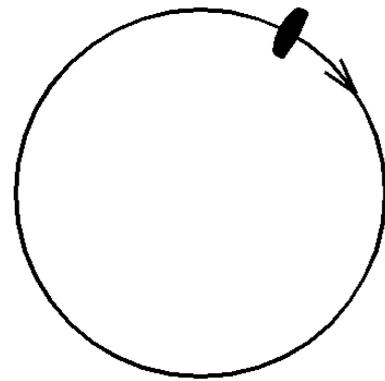
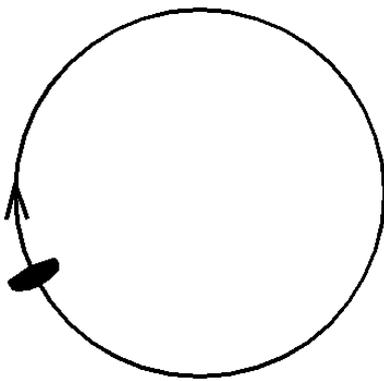


Eventually the cores will probably converge completely but at least one of the pilots needs to do something about it long before this happens. The pilots in these diagrams have a good start in that they both happen to be thermalling in the same direction. If this is not so, one of them will need to change direction at some point. We hope both pilots will be happy to end up thermalling together approximately opposite each other.

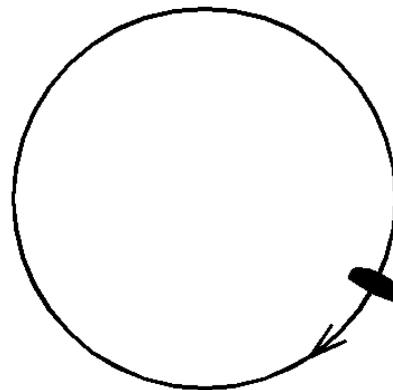
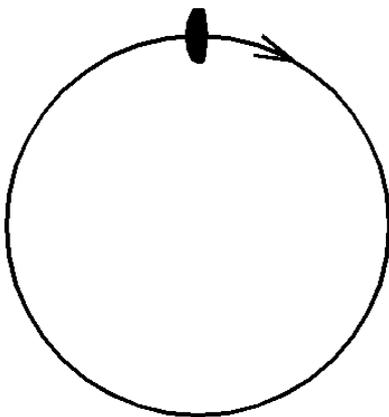


Let's go back a bit.

Crossing Between Cores

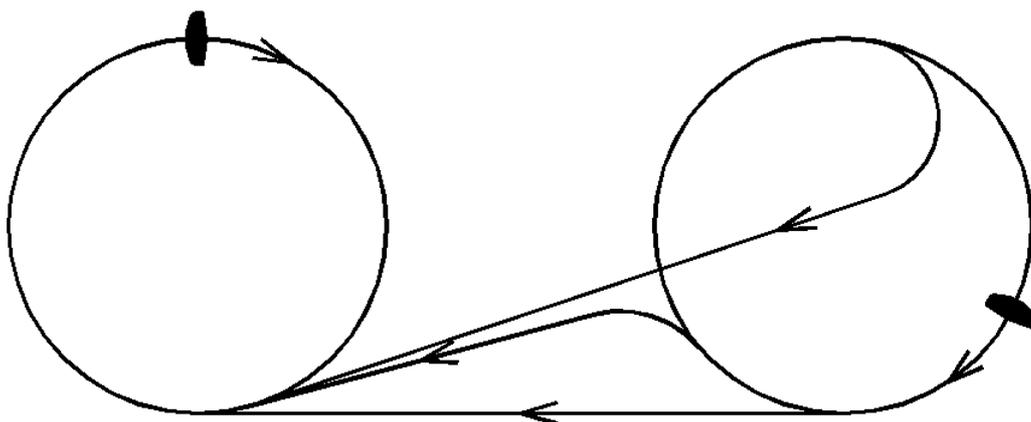


We (on the right) are climbing in our thermal core keeping an eye on a pilot climbing nearby. If he had started climbing much quicker than us we would have crossed to his core and joined him already, probably underneath him, which would be easy. However we are still both climbing more or less together and it is beginning to look like our cores are going to converge. With the cores separated as shown above we are probably fairly comfortable, but the cores get closer and it is time to take action.



Let's assume the other pilot is less experienced than we are so we are going to have to do all the work and try not to frighten him (or us!) too much. The simple solution is to cross to the other core aiming to arrive opposite the other pilot. Picking the right moment can be tricky, but we have something working in our favour. When cores get this close together the area between them is usually very lifty and we can cross from one core to the other

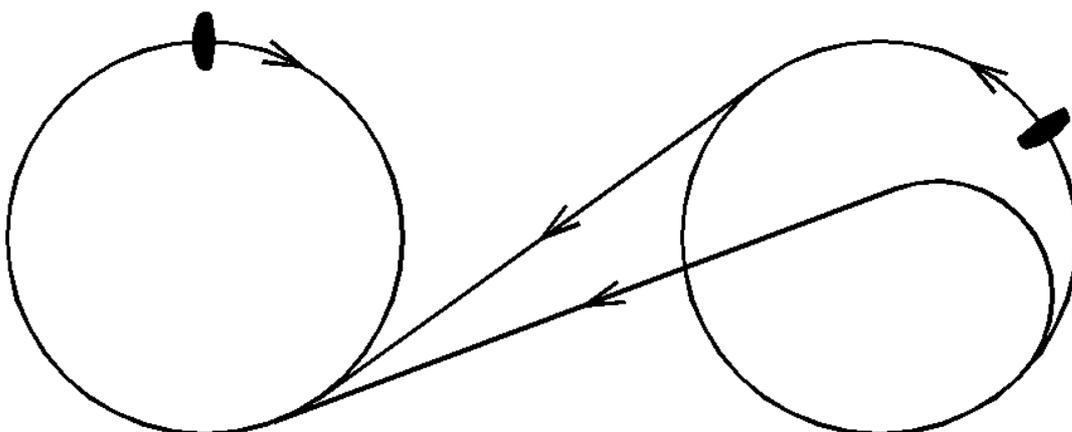
without losing much height. There are several ways we might cross.



If we get our timing wrong we must be prepared to turn away from the other core and come back again to join behind the other pilot, maybe losing some height. We might also get a little disoriented, but the more we practice the better we will get at this sort of manoeuvre.

Switching Direction

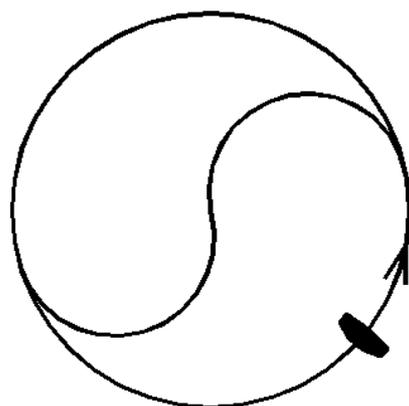
Of course we may happen to be turning the opposite way to the other pilot. In this case we can join him by switching our direction of turn as we cross.



This is harder to do well and more disorienting than if both pilots are turning the same way. However, we can often avoid the need to do this by thinking ahead. If we find a climb near another thermalling pilot we can start coring it turning in the same direction as he is.

If we find ourselves climbing close to someone who is thermalling the other way we can look for an opportunity to change direction in our core so we are already turning the same way before we have to cross.

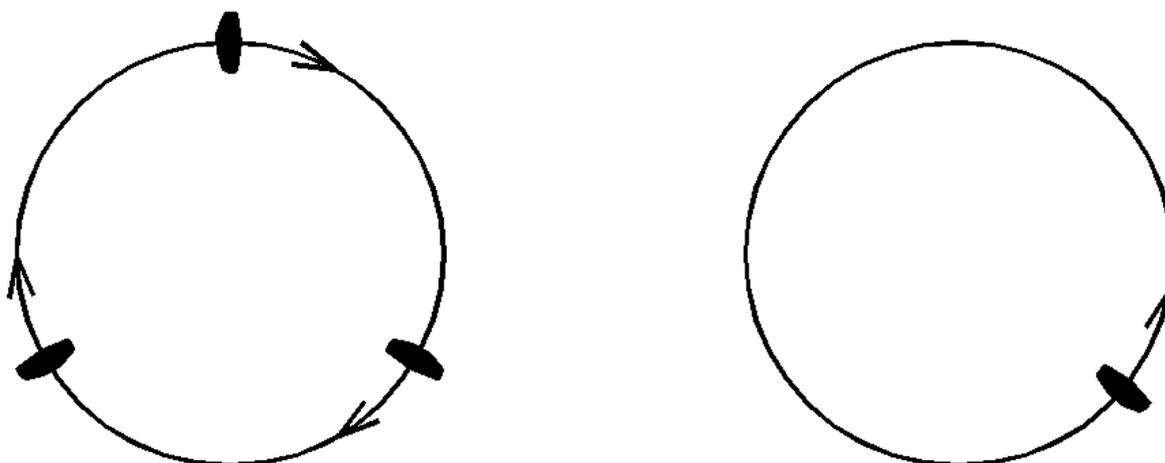
The best way to change direction is usually to cross the centre of the core.



We might lose a bit of height doing this but we may get some compensation from stronger lift at the centre of the core. It is a useful thing to be able to do. If I am on my own and have been thermalling a long while in one direction I sometimes switch direction to reduce fatigue.

Multiple Gliders - Force Majeure

What if one of the cores has several gliders in it?



The only sensible course of action is for the single pilot to switch direction and join the others in their core.

What Could Possibly Go Wrong?

How long have do we have?

We may mess up our manoeuvre and lose both cores.

The other pilot may get frightened or disoriented by our manoeuvre, lose the core and make it difficult for both of us.

The other pilot may cross to our core or change direction to thermal in the same direction as us just as we are doing the same. This is nothing like as bad as it sounds because it means the other pilot is switched on and has been watching us. We should be able to work out something with him. It's all part of the fun.

Key Points

- 1) When starting a thermal try to do so in the same direction as any pilots already thermalling nearby.
- 2) Keep an eye on pilots thermalling nearby and prepare to cross early if it looks like the cores are likely to converge. Don't wait until it is absolutely necessary.
- 3) Nearly all pilots thermal better in one direction than the other. Make sure you practice thermalling in both directions and aim to be equally good in both. If there is no reason to do otherwise I try and take thermals alternately to the left and to the right.
- 4) When very low or otherwise near terrain it may only be practical or safe to start a thermal in a particular direction which may be opposite to pilots thermalling higher up. In this situation, as long as the other pilots are high enough, I will thermal in the opposite direction to the higher gliders and reverse direction later.
- 5) If you find pilots climbing underneath you, turning in the opposite direction, and catching you up then switch your turn direction early.

Lots of things can go wrong. It can be a mess, and often is. Thermals come in many forms and pilots come with all sorts of levels of skill and experience. Things often don't work out as we expect. We just have to do our best, stay sharp and stay cool. Losing a climb is really not the end of the world. A sense of humour goes a long way!

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