

Use the others to climb



In the final article of his series, Simon Adlard explains how to exploit company in your thermal

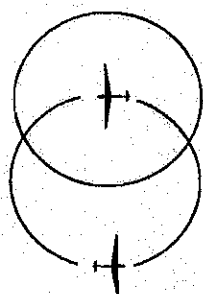
So far we have only discussed how to maintain station with other circling gliders, which may not do us any good if we aren't climbing. Earlier I said that two co-operating pilots will climb faster than one, and now I will explain how to do so.

Let's assume two gliders circling together in a moderately strong thermal, but only half in and half out of the lift. As the two go round together, there will be a point where one is in the thermal (and climbing) while the other is in the sink (and descending). When watching the other glider from the cockpit it will become obvious where the lift is by noticing where the other glider is climbing relative to you.

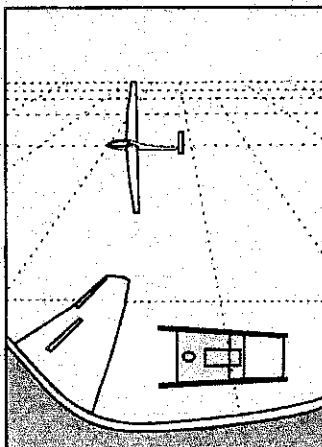
In order to shift your circle towards the best lift you will need to note a point in the distance where the other glider started to climb relative to you, then open out your turn towards that direction. If the turn were opened out in the direction of where the maximum height discrepancy was noticed then we would move further from the core.

Once the turn has been displaced towards the lift, your speed should be reduced if possible in the stronger lift. If the other pilot is on the ball then they should notice that you are climbing faster than they are and adjust their turn in order to formate on you. Often, unfortunately, this is not the case and they will simply carry on in the original turn.

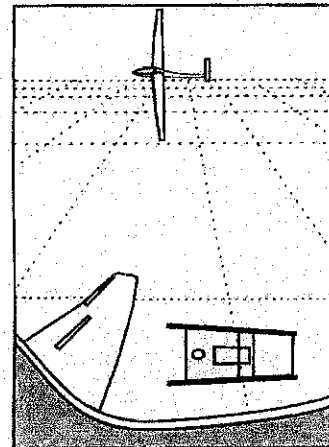
When this happens you will need to rejoin



Gliders thermalling half in, half out of the best lift



On one side of the turn you will be higher than the other glider



On the other side of the turn the other glider will be higher than you

their turn, or you will end up getting in each other's way. Because you will have travelled a greater distance than the other glider you will need to increase speed when you open out your turn in order to rejoin them. It is still worthwhile persistently opening out and slowing down in the better lift and then

'If you catch up with a large gaggle in the thermal and can't get past it, consider leaving'

rejoining the other glider because by doing this you will slowly outclimb them.

Eventually you will have gained enough extra altitude (250-300ft) for you to safely do your own thing without getting in their way.

If you catch up a large gaggle of gliders in the thermal and find that you are no longer climbing as fast as you like but unable to climb past them, consider leaving the climb - if you feel that you can glide to another thermal as strong or better than the one you

are in now. You should be the first glider to arrive there and may be able to centre the thermal rapidly, unhindered, so that you can outclimb the other gliders before they arrive to join you. This is, however, a gamble!

How you decide to leave a thermal will depend upon how busy it is around you at the time, but in general it is best to accelerate to your inter-thermal speed before you fly into the sinking air surrounding the thermal. To do this, allow the glider's speed to increase while still circling, then tighten the turn to fly through the centre of the lift heading in the direction you want to go.

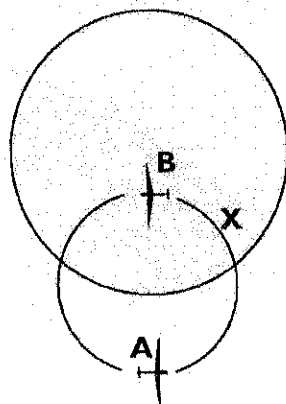
However, before doing this it is vital to make sure that you are not going to manoeuvre into the path of other aircraft; in order to do this you should not only scan below and behind the upper wing but also out on track, especially 45° off the track leg in the direction of circle.

With other gliders present it is important to be predictable when leaving the climb, which includes not making any sudden changes in altitude and therefore height. Once again slowly allow the glider's speed to increase around the turn and then simply roll level and leave the turn at a tangent when it is safe to do so.

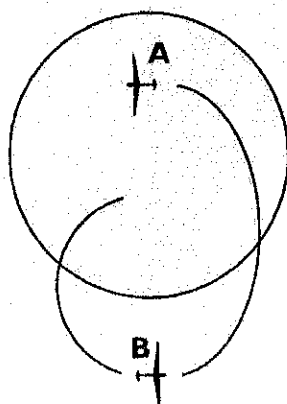
Both these methods of leaving involve increasing speed before you fly into the sink. This is because trying to increase the glider's speed in the sink uses up a disproportionately large amount of height, thus undoing all the hard work of centring in the first place.

I hope this series of articles has helped less experienced pilots to understand the mechanics of joining and sharing thermals. As your experience grows you will find ways of joining and sharing thermals other than those I have described (see *Platypus*, August-September 2002, p16). The best way to learn is to fly with an instructor in a two-seater and see the right picture first.

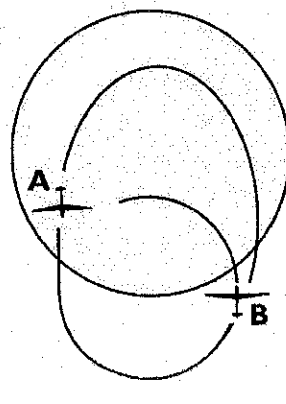
Diagrams enhanced by Jon Hall, FIRA



When you are looking at glider B from point A, it will start to climb faster than you at point X



A should open out its turn towards this point and then slow down and tighten its turn when in the good lift



If glider B continues in the original turn then A should open up and rejoin B's turn