

How does the day dye?

Reichmann states that you leave the present thermal at the same strength as the next thermal you will use.

Coming home late in the afternoon you are climbing nicely in 6 knots as you have done for most of the good part of the day. You leave and push on at your speed considering you will get another 6-knot climb. You note that the next thermal is not as good as you had hoped so you push on, looking for another 6-knotter. Eventually taking a survivor of three knots and low. There do not appear to be any of the 6-knot climbs around. You go into panic mode and grovel home.

If you had known that the day was going to dye, using Reichmann's theory, you would have taken the climb you were in to a higher height accepting the weaker top part of the climb knowing that the next climb you would take would not been so strong. You would not have pushed on so fast, using MacCready's theory. And you would have accepted a weaker climb and stayed high.

Every day comes to an end. The question is when and how fast. To find this out I looked at a number of flights in Western Australia during mid summer that had ended towards the end of the day, a number were outlanding. Note however that all the flights I noted were on good days in the December January period, I was not so interested in data for poor days in the winter months. I looked at the thermal strength of each climb, and the time it was taken. I then made a graph that indicated thermal strength with time of the day.

What were the results? (For those in other parts of the world, Western Australia does not have daylight saving time.) Each graph indicated very much the same data. At 4-4:30 the day began to decay at 1 knot per half hour, till there was nothing at half an hour before sunset. Yes mathematician's three variables in a straight line does not work but this is a guideline.

Now let us go back to the pilot we spoke of at the start. It is late let's say 4:30 who is in a 6-knot thermal. We now know that the next thermal that he is going to get will probably be at best 5 knots, so take the existing climb till it gets worse than 5 knots, then leave, slow down your inter thermal speed and accept the 5 knot climb that you will find in half an hour. Remember to take this one perhaps till it gets weaker than 4 knots.

As the sun does not have the power, the thermal cycle will be slower so. Stay high as there is a larger gap between thermals as the day draws to a close, you will need the height to find the next one. Remember at about 6:30 take all that you can get as it will probably be your last one.

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