



GETTING LOW UGGH!!

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You're on a cross country task, racing your mates ... it's a great day, 5-6 knot thermals with the occasional 8 knotter ... and you fall in a hole. Down low and struggling, no bumps or buoyant air. How depressing!

How did this happen? See all the other gliders zooming past, distant specs way up above! What did I do wrong to get into this desperate situation? Look at those guys up above. I should be up there!

Sound familiar? Been there? How did it feel? Depressing, frustrating, annoying, bloody annoying. Feeling demoralised? You betcha. I've been there, done that, and understand how frustrating, annoying and demoralising it can be.

Imminent outlanding a pretty good prospect. What do we do now? How do we get out of this seemingly desperate situation?

When I told my wife I was writing this, she said "You know a lot about getting low." Rather cynical I thought she was talking with the voice of experience, having collected me from many paddocks.

However, maybe I've learnt a bit more now, and here are a few things you can try.

I suggest also you pick the brains of some of the weak weather specialists in the club. Ex hang glider pilots get to know what works on the ground. Jenny Ganderton is masterful at getting home late in the afternoon. Alan Barnes and Attila Bertok, ex-hangies also know a thing or two. And Harry Medicott has a wealth of knowledge from his early morning starts when convection is very low.

Firstly, understand that it happens to us all. Forget the recriminations – stop punishing yourself for getting into this situation. It's not the end of the world, nor need it even be the end of the flight.

Stop worrying about what you did wrong to get into this hole. Forget the gliders sailing past way up there. Settle down and move into survival mode. You're going to find something to get you out of this situation. Think positive. If you think you're going to outland, you will.

It goes without saying that you've already made sure that there are safe landing paddocks within reach. Not only that, but you're going to keep searching ahead, so there'd better be safe options ahead.

The further you can go forward, the more air you can search, the more possibilities of lift you'll cover, so

you want to have a progression of safe landing options ahead.

Remember also – safe speed near the ground. If you’re getting low, keep thinking “Safe speed near the ground, Safe speed near the ground”. So important. You can’t afford to inadvertently stall or spin down low.

Depending on your height, you might even put your undercarriage down – if you’re scratching down low at circuit height, that’s one less thing to have to worry about if you finally have to abandon your search for lift and land in that paddock.

So how do we find that saviour thermal ... (or even some buoyant air, please!)

Forget clouds. It’s ground features you have to concentrate on. Start thinking like the air. “If I was a bundle of hot air, what would persuade me to leave my warm comfortable layer on the ground?”

You need to find something which disturbs the air, that forces the air to start moving up. Here is a list of some of the ground features that may be worth trying.

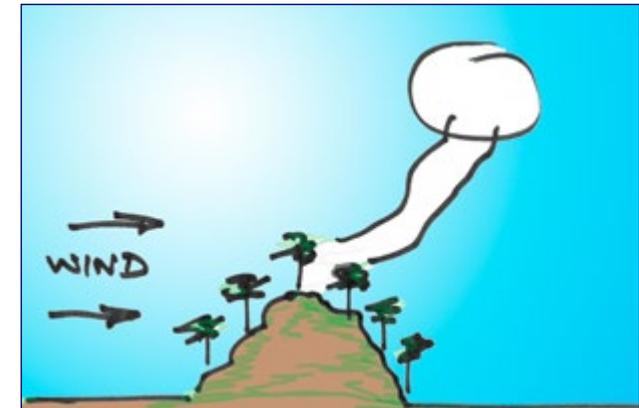
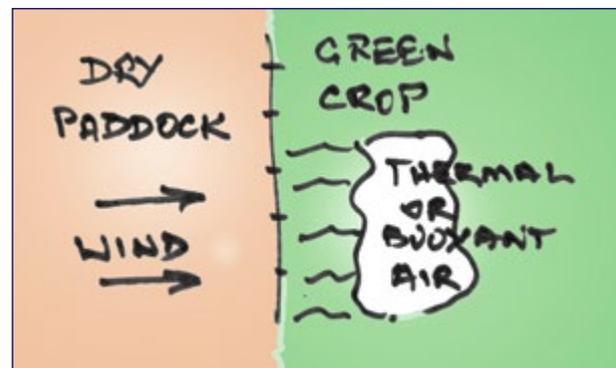
Most importantly, know the wind direction on the ground because that will help you know where to look as your thermal will drift downwind away from your ground features.

Always explore downwind from these features.

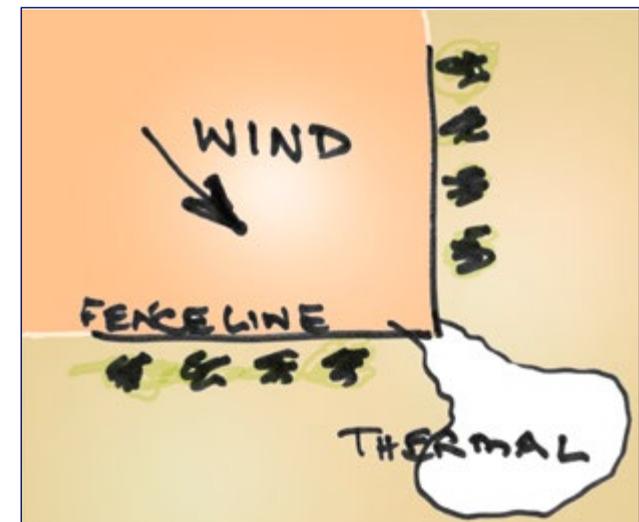
- Changes in ground texture are always worth exploring.
- The edges of fields and changes in crop colour.
- Lines of trees along roads, or edges of paddocks.

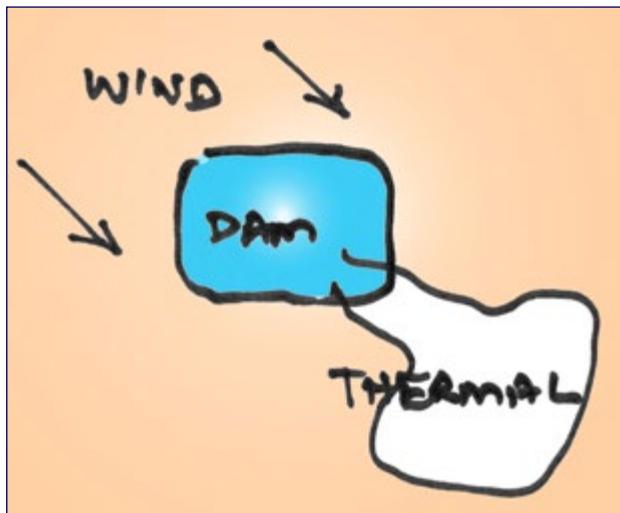


- Rock outcrops.
- Clumps of trees, often trees are left on small rocky hills, and the hill forms a trigger point.



- Particularly look for lift in the corners of paddocks edged by trees. If there’s a breeze blowing across the paddock, the trees in the corner form an obstruction which the lower layer of warm air must lift over. Once it starts rising, it keeps going.





- Tractors, harvesters – farmers harvesting normally disturb the ground layer and trigger rising air.
- Often you can see a pall of dust rising from the paddock being harvested.



- Dust devils – very often too low to be useful, but dust devils well ahead may be high enough when you get there, particularly if they're being blown across a

paddock towards trees.

- If there's wind, the lift will be offset downwind.
- If conditions are dead still, and paddocks are featureless, something moving may stir up the hot air.
- Highways with traffic, cars trucks.
- Burning ground, fires. Smoke is the rare instance of a visible thermal.
- Birds circling.
- Heavy sink can also be the precursor to a strong thermal – it may be right alongside you, or just ahead.
- Late afternoon, when the paddocks are cooling down, patches of trees, and forests give up their stored heat.
- Rivers later in the day can have a line of buoyant air running along above them.

If you find buoyant air, and there are no obvious ground features running across wind, then turn to fly upwind.

If you find buoyant air coming off a line feature (like the edge of a forest, mountain, line of trees or roadway) fly parallel to the line feature.

The important principle is to try as many features and possibilities as you can think might work. Even if most of them don't, you increase the probability of finding lift by flying over these features, compared to just pressing on without thinking.

There's another golden rule – don't turn back. The air you've just come through was no good. Don't fly through it again. You must keep pressing on to sample more air, and try more possible trigger features.

If you're low enough, you take anything! Half a knot is pure joy if you're at circuit height. In fact, at circuit height it's probably worth circling in half up/half down – so often that will develop, ever so gradually if you hang in there, and finally you may climb away as a thermal consolidates.

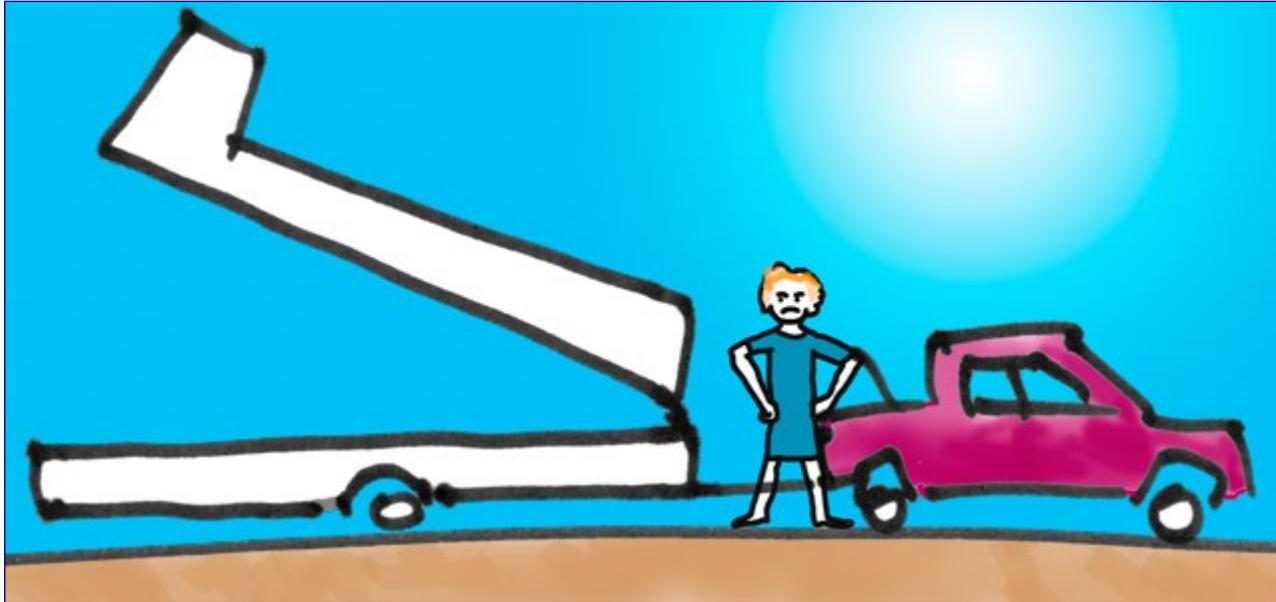
Generally, if you take a weak half knotter saviour thermal, one of three things happen –

1. It disappears. You lose it. Goddamn it where did that go? You may try and find where it went. The best option is probably to try flying upwind. If nothing eventuates, get back to your search for other lift.

2. It gradually but steadily builds in strength. You're saved. Home and hosed. Hang in there and ride it to the top. This normally happens as a number of different streams coming off the ground flow together and consolidate into one good thermal.

If the lift builds to what you would have expected as a typical thermal strength for the day, stay with it. You're in luck. Getting a strong thermal from down low is the best result you can ever hope for, as you get one long strong climb.

3. It stays weak and insipid – half a knot, maybe one to two knots. Having been so low, and struggling



there is a temptation to hang in and get back to the lofty heights where you were before.

Getting low is demoralising, and can upset your confidence. You don't want to leave this nice comfortable thermal that has saved you from an imminent outlanding. BUT, staying with this thermal would be very costly.

Climbing at one knot will take 20 minutes just to regain another 2000ft, let alone get back to cloudbase, and perish the thought of staying in half a knot for climb back to cloudbase.

Just getting an improvement from 1 to 2 knots will be a vastly better result. So in this situation, as soon as you gain a bit of safety height, maybe another 500ft, push off and find something better.

I've been surprised how often I've found something vastly better just another 500 metres or so further upwind, just waiting for me all that time.

Getting low needn't be the end of your flight. Getting to understand the possibilities, and knowing what features will generate that saviour thermal is the secret to staying in the air.

However, if nothing works, remember to turn off, stop scratching around, make the decision to land and concentrate on a safe landing in that paddock you've had in reserve all this while. And don't forget your FUST check.

Good luck.

