

# Understanding Weather

Before obtaining a “C” certificate and being cross country rated, a pilot has always been under watchful eye of the level 2 “Duty Instructor” for any signs of a change in the weather. If the weather does start to turn bad, the duty instructor can call down all aircraft before conditions become dangerous. Once a glider pilot is let loose cross country then they may have to rely on their own judgement. A pilot should always get an idea of what to expect from the days flying during the morning weather briefing, but that is not to say that things won’t change during the day. Whilst on cross country, a pilot must always be assessing the conditions around them for two reasons:

Firstly by being aware of the conditions around them the pilot will be able use this to fly further or faster and on some days it make difference between making it home or outlanding.

Secondly, if bad weather does start to form then the pilot can make an informed decision and take the appropriate action early which is the key to staying safe. As the old saying goes “It’s better to be on the ground wishing you were in the air than being in the air wishing you were on the ground. Although there is far to weather that can be written in this article (both good and bad), for following are a number of weather phenomena’s to watch out for on the darling downs.

## Storms

These are most common from September through to December and usually come from the South-West but can occur at any time and from any direction. The first sign of possible storm become evident during the morning weather report during the briefing and the duty instructor will take appropriate action depending on the days forecast. The knowledge of possible storms means extra awareness is needed when out on task. Strom clouds can build from a small towering cumulous cloud to a full blown storm in a very short time if the conditions are right.

Always keep a safe distance from storms as being underneath or close by during a downdraft, heavy rain (or even hail), or experiencing “cloud suck” close to cloud base can turn a fun flight into something scary and dangerous. Experienced pilots sometimes use a “convergence line” in front of the storm for lift but this is for experienced pilots only.



## Microbursts (Gust Fronts)

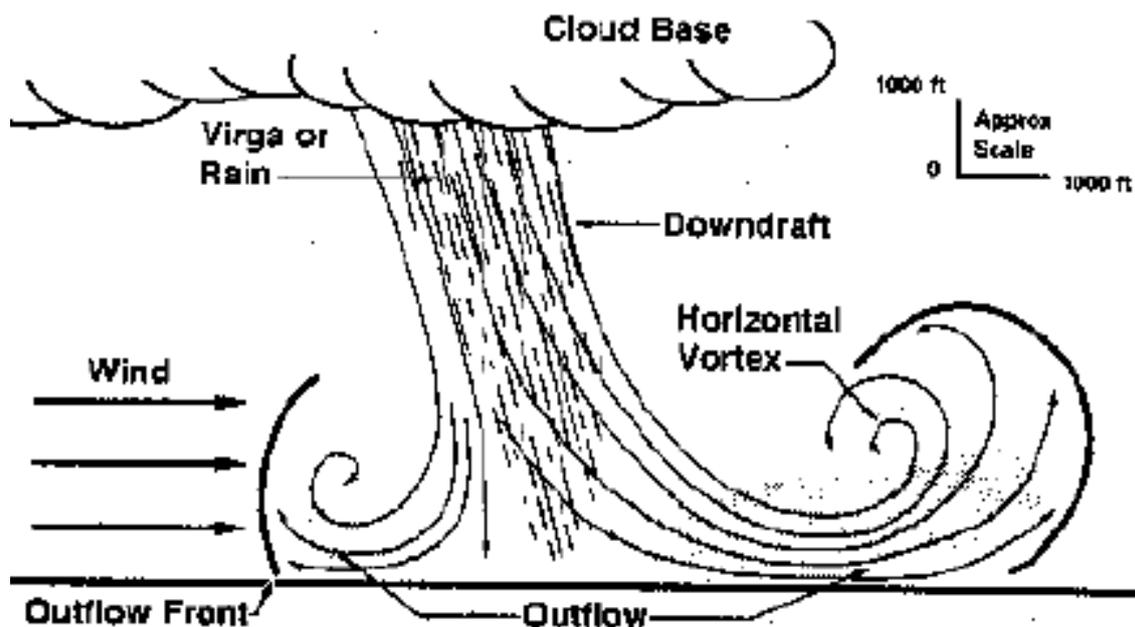
These are usually associated with the leading edge of storms and are usually visible by the large quantities of dust picked up as the microburst sweeps along the ground. Microbursts passing over the club with wind speeds of around 30 knots are not uncommon and should be treated with respect.

If you see a microburst and have sufficient height then pick a safe route away from it remembering that simply flying downwind may mean it may chase you.

If you are down low and see one approaching, landing before it hits is the safest option as trying to land during a microburst is very hard due to the large wind speeds and turbulence. If time permits, tie the glider down before the wind picks up

but if there is no time simply face the glider towards the approaching microburst, get in the glider and simply fly it on the ground with the airbrakes out until the wind dies.

If a storm and/or microburst have blocked the path back home then you may need to divert off track, wait until it has passed or land at another airfield. Remember that once a storm has passed through, there is not likely to be much thermal activity anymore.



## **Sea Breeze**

Although not dangerous, a sea breeze can cut short a cross country task if a pilot is not aware. Encountering a sea breeze on the Darling Downs is not very common as the ranges along Toowoomba and the Bunya Mountains usually stop all but the strongest sea breeze. Although it is possible to get a sea breeze in any easterly wind, it is most likely to occur during a strong south easterly wind as the sea breeze funnels up to the Darling Downs from south of Warwick.

After a sea Breeze has passed through there is little chance of finding lift so it is wise to not get caught out. Some signs of an approaching sea breeze can be an ever increasing blue hole to the east and the air to the east can look "hazy". The haze is caused by the cool moist coastal air that also ceases thermal activity. Experienced pilots sometimes use this approaching sea breeze and it's "convergence line" between the two airmasses to find extra lift. Have a talk to an experienced pilot to find out it works and how to use convergence lines.

Increasing your understanding of weather can help you to become a much better pilot and a safer one as well. A full understanding of what goes on above our heads can take a life time of research because it so complex but even just a basic knowledge can reap huge rewards to glider pilot who wants to get the most out of their flight.