

## Flying High around Alexandra

*October 2012*

Now that we have oxygen in our club glider you may be tempted to fly a little higher. But there are a number of very important issues to understand before heading up into the high blue yonder. The following is a summary of the correct procedures. At all times remember that you will discredit the whole gliding community if you breach any regulations and endanger yourself or other airspace users. If you don't understand anything discussed below then don't fly high, and don't fly in any controlled airspace till you've got it sorted. It goes without saying that you need to have passed the Radio Exam (where a lot of this is covered). Also you need to be QGP.

### Oxygen use

On the club's website you will see more than one document describing the use of our new EDS oxygen system. You must read this and practice using the system before actually flying with it. We are happy to run a refresher course on O2 and the dangers of high altitude flight.

The rules state that you need to carry O2 above 10,000 ft and must use it if you have been above that height for more than 30 minutes (but less than 13,000 ft). **You must use O2 if above 13,000 ft.**

### Upper Airspace

Use the latest Airways map. It is your responsibility to have this in the glider. You should buy your own copy. Know the airspace boundaries. They tend to change every few years so even the info in this doc may be out of date.

For example you're allowed to FL135 above Alexandra (2012) but the airspace over Clyde Dam or the Leaning Rock on the Dunstons is much lower. Look at a modern map.

### Transition layer

When climbing through 13,000 ft set your altimeter subscale to 1013 hPa. When descending through FL150 set your altimeter subscale back to your local QNH. (Tip: write it on your hand when you first change).

Check to what current transition levels are.

### Radio

Know how to change channels. Check out our website for details on the club radios. Listen a long while before calling ATC. Be patient. Formulate your words in you head before speaking!

Be sure of your location. This can be hard without a GPS so you should carry one. With a GPS you can give a distance (in nautical miles) and bearing from a VOR. Don't give obscure locations! Instead of "...Black Rocks" you should say "5 miles south-west of Tarras" or something similar. Remain on the ATC frequency (unless in a GAA).

### Transponder

This must be on when flying in controlled airspace (i.e. higher than FL135 above Alexandra, or higher than 6500 ft over Cromwell). Unless advised otherwise have "1300" selected as the transponder code and use mode C. Many aircraft use your transponder as part of the TCAS anti collision system at all heights.

### Wave

Ensure you've been briefed on the joys and dangers of wave flying.

Dangers include massive sink, strong winds, shifting wave clouds, and rough rotor.

### VNE

Know that TAS deviates from IAS as you gain height. Most aerodynamic characteristics scale with TAS. For example stalling occurs at the same IAS regardless of height. Vne does not scale, instead you need to de-rate as you climb. As a rule-of-thumb, work on decreasing Vne (as indicated!) by about 1.5% per 1000 ft.

At the upper end of our flying, say 18000 ft, air pressure is about half that at MSL. IAS is under reading by 70% so you should not exceed an indicated speed of more than 70% of Vne.

*JR October 2012*