

GLIDING MYTHS

I NEED EXTRA WATER TO FLY INTO WIND LEGS.

Let us first consider how water assists us, and also where it impedes us.

When we carry water the extra mass of the glider will go down a given glide slope at a higher speed. This is the fundamental point, so if for example we are flying with a 20 knot head wind
A four knot setting flying at 80 Knots dry would give a 60 knot ground speed. However if you were wet and for the same glide angle you might fly at 90 knots a ground speed of 70 knots would be achieved. A 17% increase in ground speed is achieved when wet. OK for final glide but we must bring into the calculation.

RATE OF CLIMB.

The loss of climb rate must be considered in all calculations when climb and glide takes place. Therefore final glide is an exception. If you carry water you have to thermal at a higher speed, with a greater rate of sink, flying a larger circle, with less manoeuvrability. This will reduce your climb rate. We now have to add the time climbing to the time gliding in the above calculation and consider that if the rate of climb is not offset by the 17% better glide, then there is no advantage. If on the other hand the rate of climb is OK then hold on to the water. But remember whilst you are climbing you are being drifted down wind!

So the answer to the question "Should I carry extra water into wind?" is. It makes no difference what the wind is doing. You fly with the best wing loading for the thermal conditions, unless you are on final glide.

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