

DIVE PLANNING

We have seen that technical dives involve a higher level of risk than recreational dives. As a result much of the planning involved in this type of diving is focused on avoiding these risks.

When planning technical dives it is essential that we consider what may go wrong and consider how we might deal with any problems. This type of planning ensures that we can successfully get to the surface, along with our buddy, even in the case of a major failure. Gas planning rules have been developed to ensure this.

The rule of thirds is a common gas planning approach and states that we will only ever plan to use two thirds of our back gas. The other third is held in reserve for our buddy or to deal with some other unexpected problem such as running over our planned time, becoming entangled or working harder than planned.

Another approach to gas planning is to work out the minimum amount of gas needed to get you and your buddy from your maximum depth up to the surface or your first gas switch. This is calculated not at your normal breathing rate but at a higher breathing rate on the basis that in an emergency situation both you and your buddy will be breathing at a much higher rate than normal.

As the diver approaches this minimum amount of gas they will begin their ascent as if they were to stay longer, and end up with less than this minimum amount, it would mean that they would no longer be able to get both themselves and their buddy to safety.

The vast majority of dives go without incident. This means that for the vast majority of dives we will not use our reserve. For this reason some divers consider the reserve to be overly cautious. With Trimix, and the corresponding prices of the gas, it becomes more of an issue to be consistently surfacing with a significant part of your gas supply untouched. For this reason many divers will deliberately plan dives that do not allow sufficient reserve. In fact many divers pride themselves on using the majority of their gas supplies. These divers will often end up with a very low pressure in their back gas at the end of the dive. Of course if these divers do ever have a problem, whether it is a buddy running out of gas, having to breath harder than expected or any other problem they may find themselves using up all of their breathing gas.

Any divers taking this approach are gambling that they will not have any problems and will not get into a situation where they run out of gas. The odds may in fact be in their favor, the chances of a problem are very remote. However the consequences of that failure are very serious.

This is like playing Russian roulette but with a gun that has thousands of empty chambers and only one bullet. The chances are that you will be fine and will get away with it but there is always that chance that you will be unlucky. Do you want to take that chance?