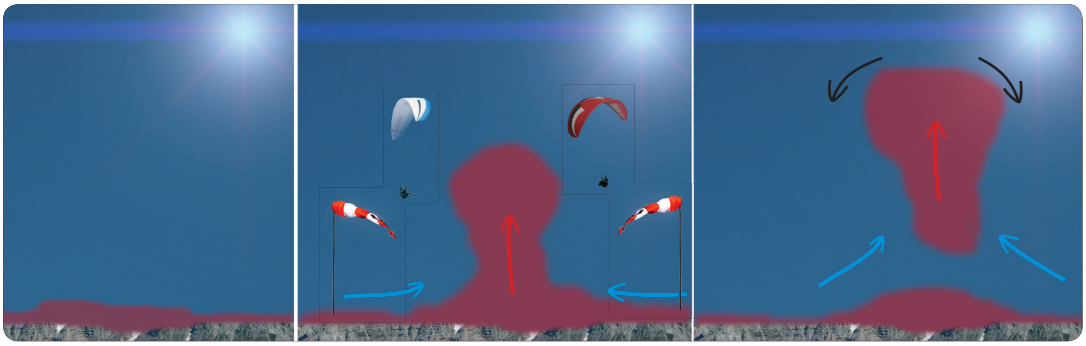

Picture 1.3 A thermal is formed: The ground is heated up by the sun and transfers some of the heat to the overlying air. At some stage the temperature difference becomes so great that the binding with the earth no longer holds. The thermal lifts off. Both pilots in the centre photo are flying with a tailwind!

very high. If the air is also humid, and there's no inversion below the dew point, cumulus clouds will develop and mark where the thermals are. When the air is dry, or when the thermals aren't rising very high, the thermals may remain „blue" which means that no cumulus clouds are formed. We normally simply call these „blue" days.

Thermal bubbles, pulsating thermals and thermal columns

When an individual air mass has reached the critical temperature and risen, and the sun is not strong enough to heat the same area sufficiently to keep the thermal fed from below, we call it a thermal bubble. If another bubble forms in the same place shortly it may be considered a pulsating thermal, see the illustration 1.3. It is sometimes possible to actually see the warm air lying on the ground before it releases, just think of the shimmering of hot air over a road on a hot summer day.

If on the other hand we have a ground section that is receiving a strong influx of the sun's energy, and this is enough to keep feeding the thermal from below, we speak of thermal columns. Because of the topography and the nature of the soil, thermal columns are more common in mountain regions, where a particular rocky mountain flank may be facing directly into the sun for extended periods. The thermals will often flow upwards following the terrain, and only release once they meet a distinct trigger point, sometimes only at the peak. At the

Picture 1.4 A thermal column in the mountains. This cloud will remain where it is for several hours, sometimes smaller, sometimes bigger.