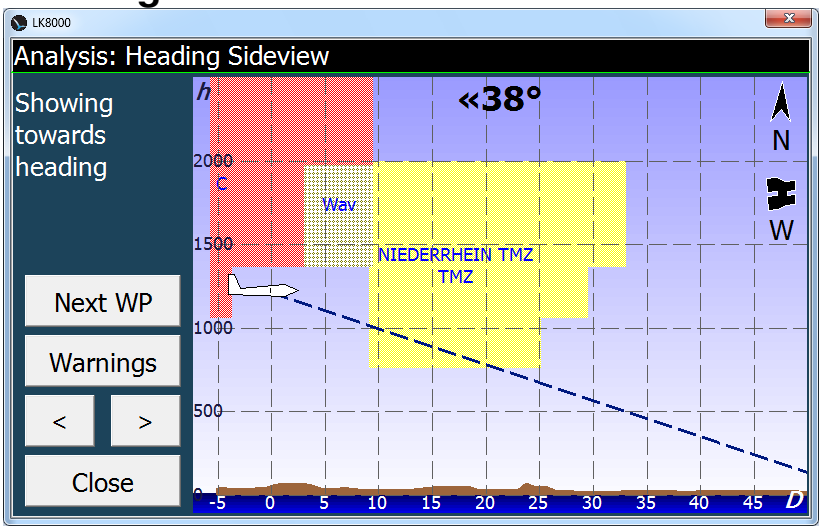
Analysis: Sideview

In the Analysis: Airspace we can have a look from the side, which gives more detailed information about the topology and the different heights in a height distance diagram called sideview. On the left side is the airplane symbol in its current altitude. The different airspaces, their classes, and names are displayed depending on the displayed size.
In order to get detailed airspace information click in the airspace area and the airspace detail dialog will pop up. In case of embedded or overlayed a dialog for all airspaced in that particular touched region will pop up one after the other.

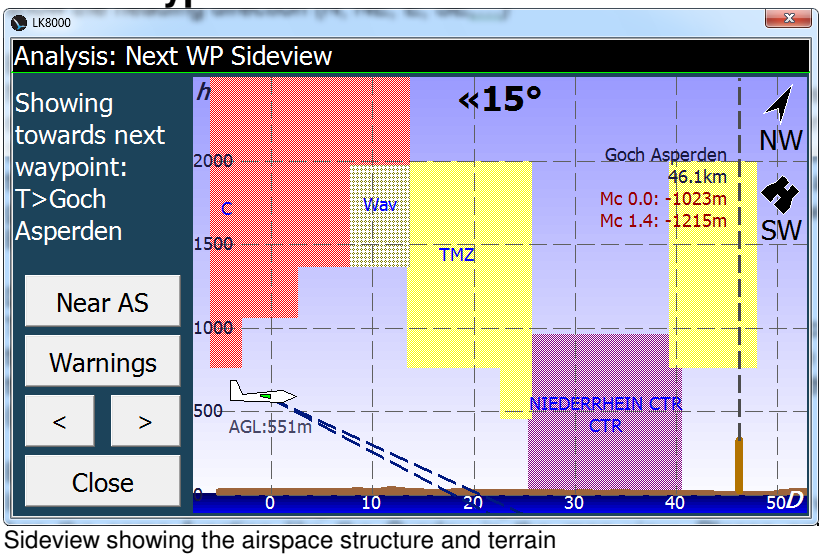
There are three different views that can be selected:

Heading Sideview



Heading: showing the airspaces and terrain profile on the current heading for the next 50km. This view is changing while turning. The blue dashed line shows the extrapolated glide path of the last 20s.

Next Waypoint Sideview



Sideview showing the airspace structure and terrain

Next WP: (Next Waypoint) shows the airspace and terrain profile to the currently selected Waypoint, which is displayed in the upper left corner.

In this view some more information can be found

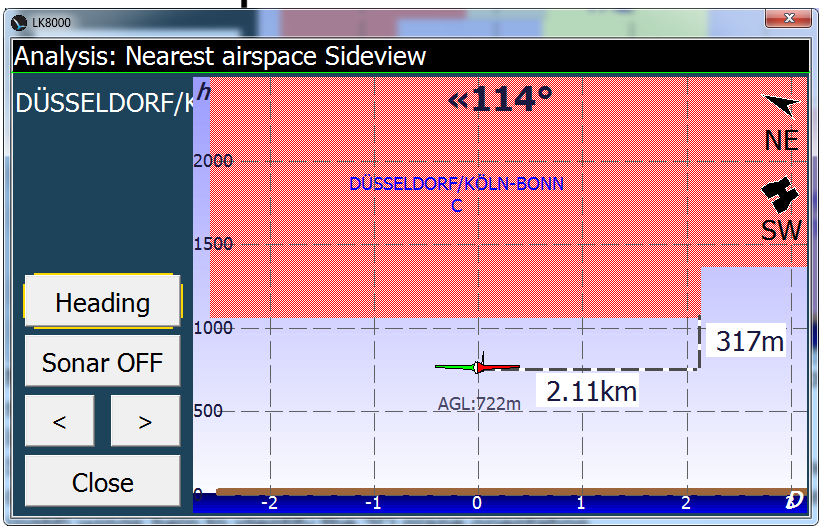
Under the plane symbol we can find the height Above Ground Level (AGL:)
Underneath is the brown terrain profile and the elevation at the current position (ELV:)
The blue lines represents the glide slope for the given Mc Value and Mc=0.0. This helps to see if it is possible to fly over a particular obstacle (airspace or mountain). The shown slopes are based on the current wind values and the selected glider polar assuming no vertical air movement.

On the right side, the destination waypoint is marked with a vertical white dashed line and the name of the waypoint. If there is an orange part at the bottom of the line, it indicates the safety altitude. This is displayed only if this waypoint is marked as a landable point.

The corresponding Mc arrival altitudes (above safety altitude) are displayed under the waypoint name and distance on the waypoint marker. If the terrain is “high enough” the waypoint elevation is also shown in the terrain profile under the marker.

As soon as the arrival altitude is expected to be above safety altitude, the expected altitude above ground level is shown at the right side of the waypoint marker and the Mc arrival altitudes turn green.

Nearest Airspace Sideview



317m under a C airspace, heading NE, sideview from NE toward SW

Nearest Airspace Sideview: (Near AS) is similar to the Next WP, but is showing the vertical and horizontal distance to the nearest airspace. Coming close to airspace (<1km horizontal, <1000ft vertical) the diagram is zoomed to an appropriate level. In order to navigate near airspace without gazing at the screen, an acoustic distance feedback is given (Sonar). It can be turned off with the **Sonar OFF** button.

Please note:
If you enter airspace, we assume this was intended and authorised, so the Sonar will stop. The nearest airspace will now be calculated excluding the block you are flying in, and the Sonar will relate to this new block.

The pings will start again when:

- You approach new airspace. This includes airspace which touches the block you are already in.
- You leave the block of airspace. You will hear reducing pings as you move away.

Plane symbol

Since this view does not represent the heading, the airplane symbols changes depending on the angle relative to the viewpoint. The Elevator as well as red (left) and green (right) wings help to identify the 3D plane orientation.
Please note that the Plane symbol is not a true to scale model, it is much too big for the scale. So it might be drawn “into” mountains.

North Arrow (compass)

 north in front right of glider

 Glider heading North West

On the upper left corner a (GPS) compass can be found. The north arrow is always pointing to the north (assuming the display being horizontally in front) while the letters underneath show the heading direction (N, NE, E, SE,…)

Binocular

 Looking from the East

 Towards West

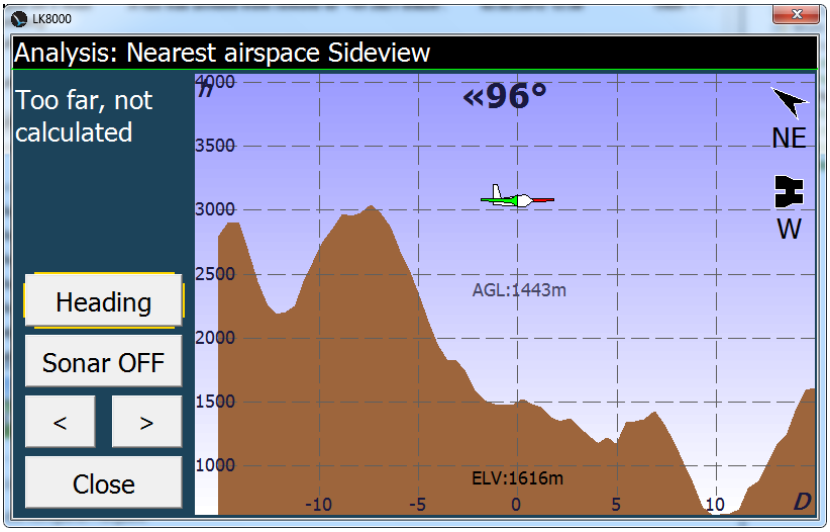
Normally the (turning) plane symbol is enough to identify your position relative to the obstacles. But in some cases we may want to know the viewing angle onto the sideview.
Since the viewing reference is no longer the plane but a static point outside. In order to get that orthogonal point we have the binocular indicating the viewing angel relative to the geographic directions (north up). The letters underneath show the viewing direction (N, NE, E, SE,…).

Bearing Difference

 5° left off waypoint direction

In the middle top of the diagram the bearing difference to the selected waypoint is shown. It has the same function as the Overlay in the map view. Please note that it will not be updated while circling.

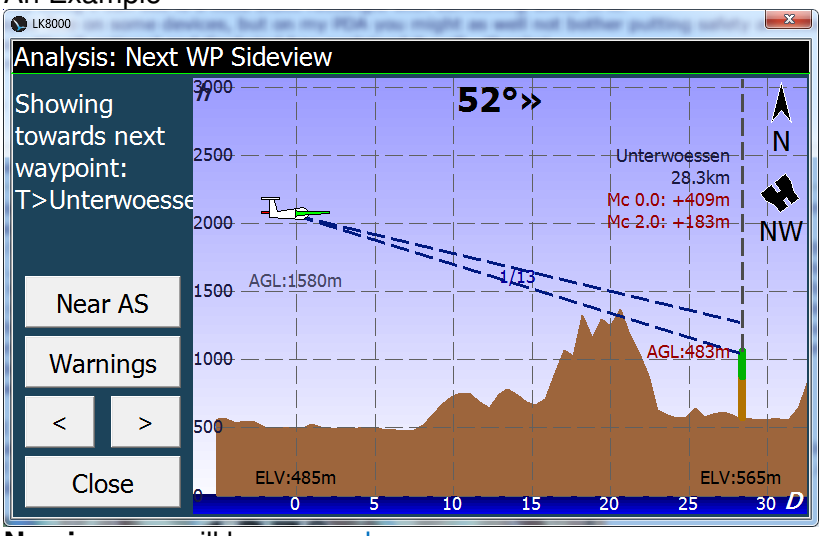
Dynamic Vertical Zooming



Climbed above 3000m the view is scrolled up, the sea level is no longer visible.

The normal height of the sideview is from MSL to 2400m (8000ft). If we climb higher, the top of the diagram is increased to FL100 (3300m). If we climb even higher, the base and the top also climb, with a spread of 10,000ft. If we lose the 0m reference, the (blue) sea level indicator will disappear.

An Example



No airspace will be crossed
On the way to **Unterwoessen** (Task **T>**) in **28,3 km** distance
Altitude: **2065m** (ELV + AGL)
Terrain elevation at current position: **485m** (ELV)
Height above ground: **1580m** (AGL)
Heading exact north **N**
Sideview from SE to **NW**
Target Waypoint Unterwoessen **52°>>** to the right
Terrain collision if gliding with current **Mc=2.0**
Probably **No Terrain collision** if gliding with current **Mc=0.0**
Reaching Unterwoessen in **483m** AGL, **183m above safety** height @ Mc=2.0
Reaching Unterwoessen, **409m above safety** height @ **Mc=0.0**
Terrain elevation in Unterwoessen **565m**
Expected Glide ratio **1/13** (as a result of Wind and Mc=2.0)