Section 11: Cartographic aspects

Chapter 29 Dealing with areal names on adjoining map sheets; multiple naming

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29.1 Introduction

Depending on the map scale, every topographic map only portrays a limited part of the Earth surface. Although the objects rendered on the map have a limited extent as well, it will frequently be the case that they surpass the map margins and continue on the next map sheet. This will be the case especially for features with a larger extent such as administrative areas, mountain ranges or valleys, but larger lakes and rivers might require more map sheets as well for their portrayal. Consequently, they should be named on each of these sheets. The following sections will show how to go about map lettering close to the map margins.

29.2 Technical methods of map lettering

29.2.1 Analogue map production

Until the end of the 20th century, maps were produced using analogue techniques, and the unit of production always was one single map sheet. The cartographer who had to effectuate the map lettering, tried to do it in such a way that the extent of a feature on the map sheet would be visualized optimally by the size, spacing and extent of the lettering within that map sheet. But this could result on neighbouring map sheets in map names in sizes that did not reflect the actual extent of the feature to be portrayed in reality.

If only a small part of the feature would be located on one of the sheets that were to be prepared, then the size, spacing and extent of the name would only reflect the (clipped) area of the feature portrayed on that particular map sheet. The true size of the feature could not be deduced from the lettering only.

29.2.2 Digital Map production

When digital map production techniques were introduced, cartographers updating the map contents were no longer bound to specific sheet lines. The new data would be incorporated in a „cartographic model" without any sheet lines or subdivisions. When providing the map files for printing, any sheet lines could be chosen that were thought appropriate.

So, cartographers, when lettering the maps, no longer took account of the sheet lines that would define the mapped area in the final printed map product. The geographical names of physical or administrative areas or mountain would be located on the map in such a way that through their size and spacing they would optimally visualize the extent of the mapped feature. Repeating the name of the object in the "cartographic model" no longer was necessary.

29.2.3 Processing names for map sheet production

When a map sheet is produced from a „Cartographic model" without sheet lines, then some names may be cut off , to continue on the adjoining map sheet. If the map user would only dispose over one of the two adjoining map sheets, then he would only be able to perceive part of the object name, and thus be unable to

assess or even guess the complete name of the feature. This impossibility forces the cartographer to add to every map sheet the missing part of the cut-off names in the map border.
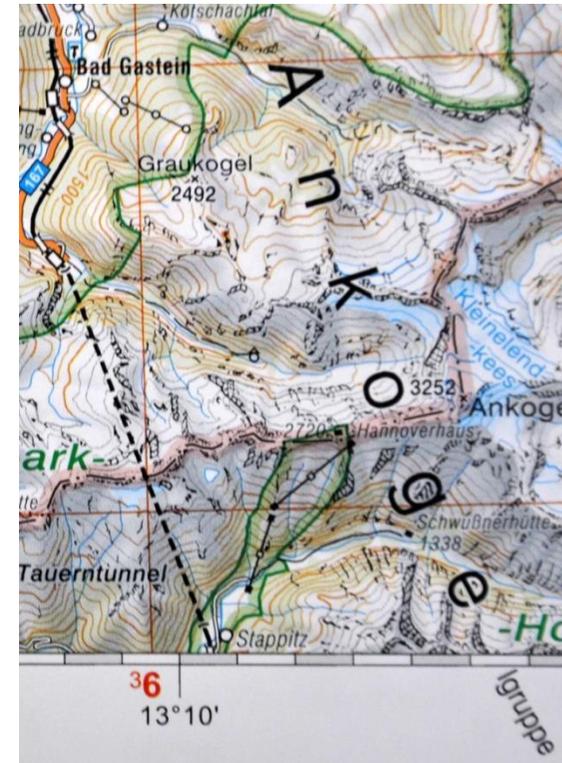
Figure 29-1 Map lettering running out of the map into the border

In figure 29-1 one can see the example of how part of the name „Ankogelgruppe" has been delegated to the map border, in a smaller type size.

The cut-off and therefore missing part of each geographical name will be continued in the map border in a smaller type size, when editing the map border.

A similar procedure is chosen when the first part of a geographical name is cut off, and it is only the remaining part of the name that is incorporated in the map sheet. In figure 29-2 an example is given of the way in which the name „Samnaungruppe" is being dealt with. Here, the first part of the geographical name is incorporated in a smaller type size in the map border. As this mountain range has a southwest-northeasterly direction, the name
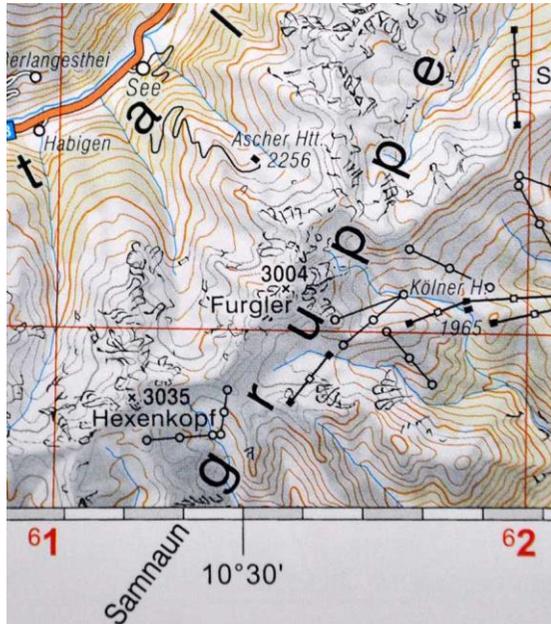

Figure 29-2 Map lettering running into the map from the border

would start in the adjoining map sheet south of the present one. This method of completing the name in the map border is called 'lettering running into a map from the border' or 'lettering running out of the map into the border'.

Figure 29-3 shows, on the example of the name „Weinsberger Wald" the possibility that one and the same map name can run both in and out of the map border.
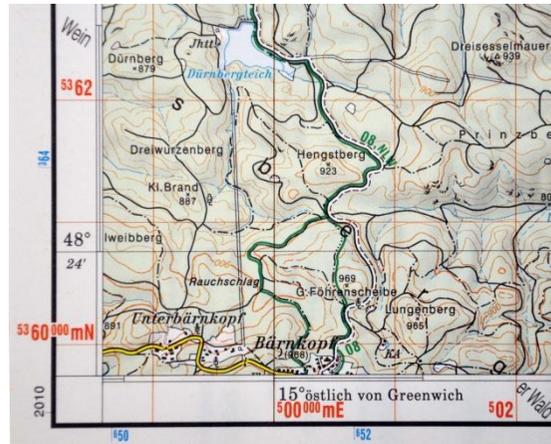
Figure 29-3 Weinsberger Wald

29.3 Map sheet lines with overlap

The map sheet lines on Austrian topographic map series are in principal formed by meridians and parallels. However, every map sheet extends over these sheet lines, by an overlap zone of about 1 km wide.

In figure 29-4 the sheet lines of *15° East of Greenwich* and *48°24´ have been designated by* purple lines. As can be seen clearly, the printed map sheet extends over these sheet lines and shows a considerably larger area.

Figure 29-4 Relation between the sheet lines and the map border, resulting in an overlap with the adjoining sheets.

The reason for opting for this overlap is the following:

In the first place, this overlap zone simplifies the use of the map close to the map border. In most cases it won't necessitate the map user to switch from one map to the adjoining map.

Secondly, having an overlap zone also eases the cartographer's task. Although geographical names will still be transected by sheet lines, only a very few will be transected by the map margins. The few names for areas that extend beyond both the sheet lines and the map margin will be provided with lettering running into or out of the map border, as shown above.

I hope that with this information about cartographic procedures in Austrian official mapping I have provided some incentives for the production and processing of cartographic products.

29.4 References

-Bundesamt für Eich- und Vermessungswesen, Wien (2000). Technische Weisungen zum Zeichenschlüssel, (internal resource for Topographers and Cartographers)

-Bundesamt für Eich- und Vermessungswesen, Wien (2007). QM-Verfahrensanweisungen, Österreichische Karte 1:50 000, 1:250 000. Aktualisierung der Kartographischen Modelle KM50, KM250.