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English only

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Standardization of Geographical Names**

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Item 9 (b) of the provisional agenda*

National standardization: office treatment of names

Information on the new map series of Austria

Submitted by Austria**

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Introduction

The recent accession of the Austrian Republic to the Nato-program „Partnership for Peace“ makes it necessary to adapt the reference system and also the projection, the scales and the sheet cut of the whole national map-range to international standards.

The Federal Office for metrology and surveying changes therefore the national map-series in the scales 1:50 000 /1:25 000 and 1:200 000 from the former system of the Austrian Land surveying (MGI) to the world-wide standardized „Universal Transversal Mercator System“ (UTM). Along with this change a conversion of the sheet cut of these maps will be carried out.

As the transition to the international reference system plus a new sheet cut under adherence to the quality standards can be done only gradually. Those ranges, which are submitted to actualization are replaced by new map sheets in the UTM system continuously.

1. Reference system and projection

- Referenzsystem: World Geodetic System 1984 (WGS 84)
- Ellipsoid: Geodetic Reference System 80 (GRS80)
 - a = 6 378 137.000 m
 - b = 6 356 752.314 m
- Map reference system: Universale Transversale Mercator Projektion (UTM)
- Longitude zones: two 6° wide strips cover the federal territory
- Meridians of origin: 9° and 15° east of Greenwich (Zone 32 und 33)
- Altitude datum: water level indicator of Triest

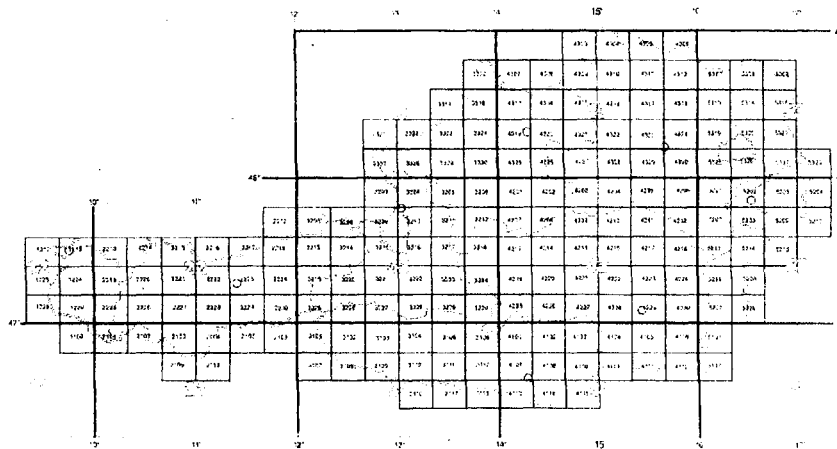
2. The new sheet-cut

2.1 The new sheet-cut of the Austrian map 1:50 000 in the UTM system (ÖK50-UTM).

The sheet cut of the new Austrian map 1:50 000 amounts to 20' x 12' and is adapted to rounded geographical grid lines.

The average surface depicted within the given confinements amounts to 560 km².

Die Blattstellung der ÖK50 im UTM-System



191 map sheets are necessary to cover the entire federal territory.

2.2 The new sheet-cut of the Austrian map 1:25 000V in the UTM system (ÖK25V-UTM)

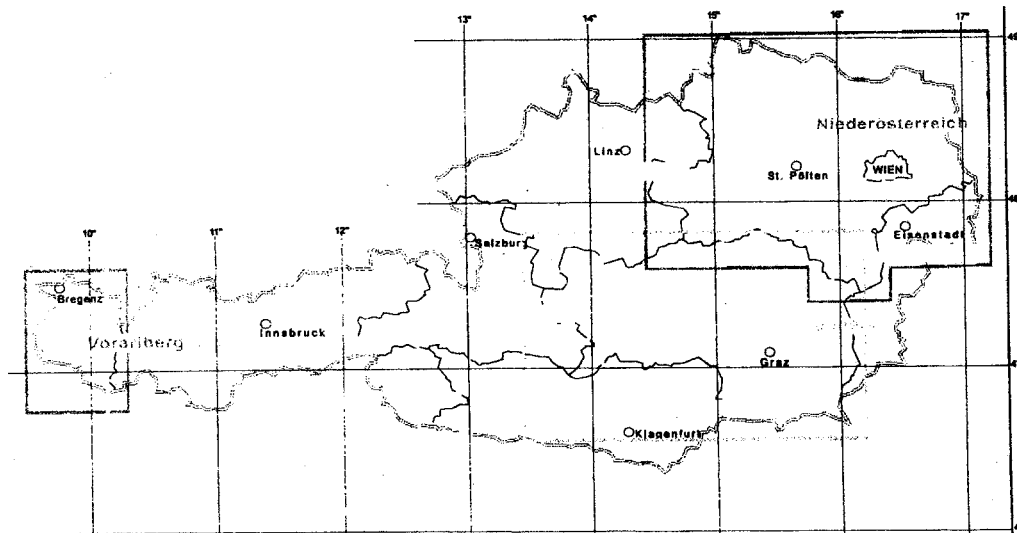
Due to the map format resulting from the enlargement the surface of a ÖK50-UTM is necessarily divided into four parts.

The contents of every sheet is divided into a west half and eastern half. The north part is printed on the front and the south part on the back of the sheet.

The sheet cut of the new Austrian map 1:25 000V amounts to 10' x 12' and is selected in accordance to rounded geographical grid-lines.

2.3 The sheet cut of the new Austrian map 1:200 000

Each of the sheets of the new Austrian Map 1:200 000 depicts an entire Province of the Federal Republic on a map sheet. Therefore the sheet cut depends on the individual extension of each Province.



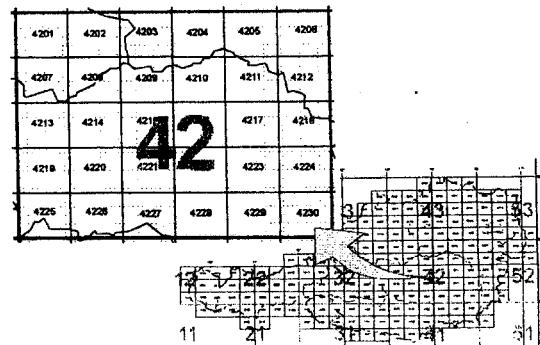
To cover the entire federal territory 8 map sheets are necessary.

3. The sheet numbering

3.1 The sheet numbering of the ÖK50-UTM

The sheet numbering of the Austrian Map 1:50 000 is composed of four digits.

The first two digits describe a range from 2° x 1°, the two following digits indicate the sheet position within this range, whereby a sequential numbering from 1 to 30 proceeds from left above to the right down.



3.2 The sheet numbering of the ÖK25V-UTM

The sheet numbering of the Austrian map 1:25000V is similar to the numbering system of the ÖK50. As a ÖK25V sheet depicts either the western or the eastern half of an ÖK50, the page number bears an additional mark if it is west or east.

3.3 The sheet numbering of the ÖK200

The Austrian map 1:200 000 bears no numbering. It is designated by the name of the Province of the Federal Republic.

4. The map sheet name

4.1 Each sheet of the Austrian map 1:50 000 bears additionally to the number a special sheet-name, which generally derives from the name of the largest locality or an other important geographical term.

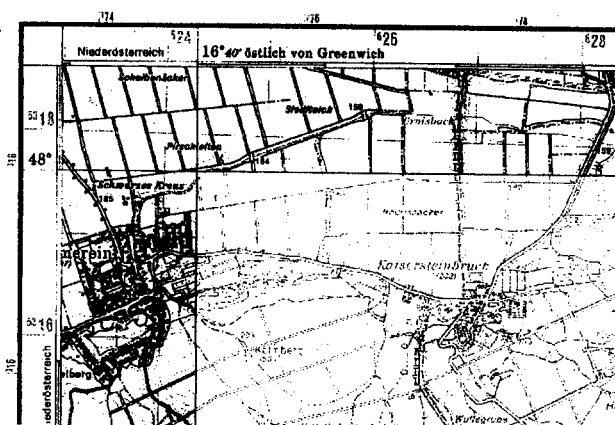
4.2 The Austrian Map 25 000V shows generally either on the West or the East part the appropriate name of the ÖK50-UTM, yet on the other sheet a new name.

4.3 The Austrian map 1:200 000 is addressed by the name of the shown Province of the Federal Republic.

5. The map face

5.1 The map face of the ÖK50-UTM

The map face of the new Austrian Map 1:50000 (20' x 12'), given by the sheet cut, is enlarged at all four sides by a strap of approximate one kilometer in width, in order to facilitate map reading within the border range to the neighbour sheet.

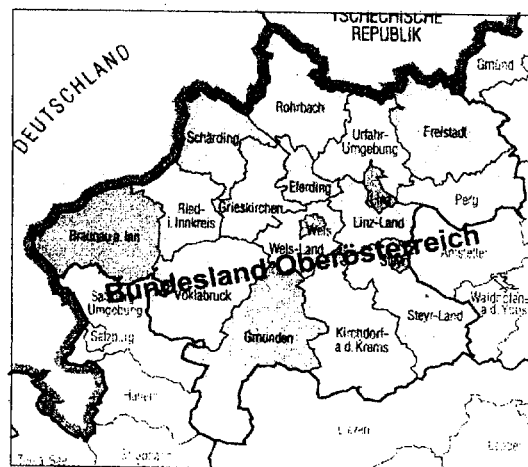


5.2 The map face of the ÖK25V-UTM

The map face of the Austrian map 1:25 000V is likewise extended at all four sides by a lap strip of approximately one kilometer extension. Thus a comfortable handling is ensured also in the boundary region of each map sheet.

5.3 The map face of the ÖK200

The map face of the Austrian Map 1:200 000 is limited in a way, that the whole Province of the Federal Republic with adjacent ranges is illustrated.



6. The sheet margin

6.1 The sheet margin of the Austrian Map 1:50 000-UTM.

The title page is printed in Blue, the identification colour code of the ÖK50-UTM. Left above shows the page number, one line below the map-sheet name. The output format of the map sheet follows in red writing, thus the designation with „route markings“ or with „road print“.

The middle part shows a summary presentation of the sheet range and the adjacent neighbour sheets on a scale of 1:400 000.

In the lower range of the title page the designation of the type of map, the map series and the BEV-Logo can be read.

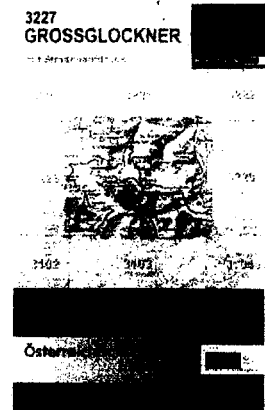
Underneath the title page, this is that part which represents the back of the folded map, a general map of the political districts and municipalities at a scale of 1:250 000 is situated. The numbers of the political districts and the political municipalities are registered.

In the lower range of the right part of the frame the names of the political districts and the political municipalities are summed up in tabular form.

The left edge of the map contains the map legend, map writings and abbreviations used in the map series.

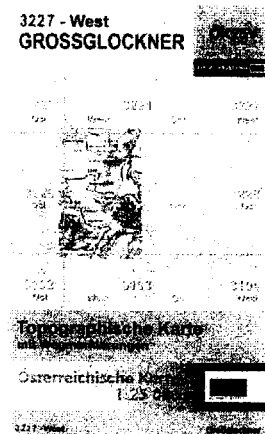
All descriptions are given in both the English and German language.

Beneath the map page a formatting of all 191 sheets is affixed.



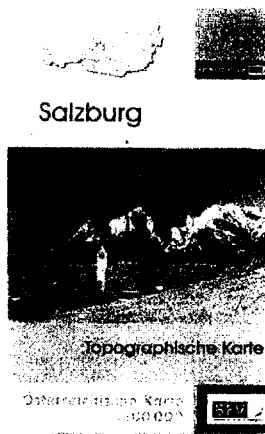
6.2 The sheet margin of the Austrian Map 1:25 000V-UTM

The page margin of the Austrian map 1:25 000V contains beside the title page, a map sheet overview of the adjacent map sheets, informations to the map reference system and the legend.



6.3 The sheet margin of the Austrian Map 1:200 000

Beside the title page the Austrian map 1:200 000 contains an overview of the political districts of the map sheet and the legend.



7. Map reference system of the new map series


The universal transversal Mercator system forms an even right-angled coordinate lattice.

Thus a grid results of rounded right and high values of same amount. This grid serves as an orientation device.

The Austrian federal territory is covered by 2 longitude zones with the Meridians of origin 9° (zone 32) and 15° (zone 33).

The grid lines are arranged with the Austrian map 1:50 000-UTM and 1:25 000V-UTM in the distance from 1 km and with the Austrian map 1:200 000 in the distance from 10 km.

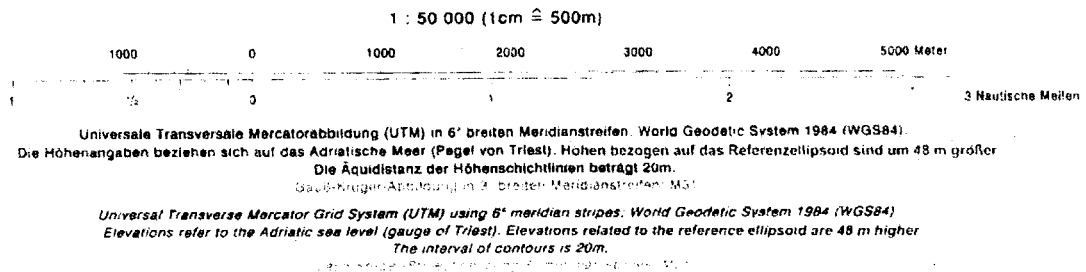
On the sheet margin of the maps ÖK50-UTM and ÖK25V-UTM is attached an example, which may serve as a guideline for use of the reference system.

UTMREF (MGRS)		UTM	Position report for an object: HOCHTOR - cross on summit
36	Position des Kartenblattes: Map sheet position:	336 000mE	Use the digits of the next vertical grid line to the west of the object... ...to read the value (two digits, as in face of military map).
2	Zonenfeld: Grid Zone Designation: 33T	200	Add distance... ...from grid line to the object in tenth of grid line distance.
16	100-km-Quadrat: 100-km-Square Identification:	5216000mN	Use the digits of the next horizontal grid line to the south of the object... ...to read the value (two digits, as in face of military map).
5		565	Add distance... ...from grid line to the object in tenth of grid line distance.
362165		33 336 200 E 5 216 565 N	Position report
UN362165			Position report with 100-km-Square
33TUN362165			Position report with Grid Zone Designation

In grey writing the military - and in brown writing the civilian reporting procedure is described; both in German and in English language.

8. The linear scale

The units of the linear scale of the Austrian maps 1:50 000 and 1:25 000V are given both in the metric system and in nautical miles (military map, aeronautical map).



With GPS-devices measured heights are ellipsoidal heights, and indicate in Austria a higher value than the sea levels indicated in the map. Since this difference depends on the place of the respective GPS-measurement, this value for each map sheet is computed and proven in the text underneath the linear scale.

9. The different north directions

9.1 The grid magnetic angle

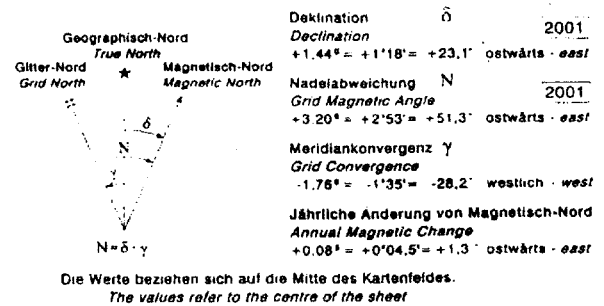
The magnetic angle indicates the angle between magnetic north and grid north.

9.2 The declination

The declination indicates the angle between geographical north (planetary axis, ~ polar star) and magnetic north.

9.3 The grid convergence

The angle between geographical north and grid north is called grid convergence



10. Preview of the publication of the Austrian map 1:50 000-UTM

Blattnr.	Blattname	Jahr	Blattnr.	Blattname	Jahr	Blattnr.	Blattname	Jahr
1106	Garaellen	2004	3220	Mittersill	2003	4230	Gleisdorf	2008
1217	Lustenau	2004	3221	Zell am See	2005	4303	Alt-Nagelberg	2004
1218	Bregenz	2004	3222	Sankt Johann im Pongau	2005	4304	Waidhofen an der Thaya	2003
1223	Feldkirch	2004	3223	Radstadt	2005	4305	Raabs an der Thaya	2004
1224	Hohenems	2004	3224	Schlading	2004	4306	Langau	2004
1229	Vaduz	2004	3225	Sankt Peter in Ahrn	2004	4307	Sankt Oswald bei Haslach	2004
1230	Bludenz	2004	3226	Matrei in Osttirol	2003	4308	Leopoldschlag	2004
2101	Gaschurn	2004	3227	Großglockner	2001	4309	Gmünd	2003
2102	Pfunds	2005	3228	Bad Hofgastein	2003	4310	Zwettl	2003
2103	Vent	2007	3229	Sankt Michael im Lungau	2003	4311	Horn	2004
2104	Sölden	2007	3230	Tarnweg	2003	4312	Retz	2004
2105	Sterzing	2007	3312	Aigen im Mühlkreis	2004	4313	Haslach an der Mühl	2003
2106	Sand in Taufers	2004	3317	Schärding	2008	4314	Freistadt	2003
2109	Schlanders	2007	3318	Rohrbach in Oberösterreich	2003	4315	Groß-Gerungs	2003
2110	Meran	2007	3321	Allötting	2009	4316	Ottenschlag	2003
2212	Tegernsee	2007	3322	Braunau am Inn	2009	4317	Krems an der Donau	2004
2213	Sonthofen	2004	3323	Ried im Innkreis	2008	4318	Langenlois	2004
2214	Vils	2005	3324	Grieskirchen	2004	4319	Linz	2003
2215	Reutte	2005	3327	Ostermiething	2009	4320	Perg	2003
2216	Garmisch-Partenkirchen	2005	3328	Mattighofen	2008	4321	Grein	2004
2217	Hinterriß	2007	3329	Vöcklabruck	2008	4322	Pöchlarn	2005
2218	Kundl	2007	3330	Altmann-Puchheim	2008	4323	Sankt Pölten	2006
2219	Lech	2005	4101	Gurk	2005	4324	Herzogenburg	2002
2220	Häselgehr	2005	4102	Althofen	2006	4325	Wels	2008
2221	Imst	2005	4103	Wolfsberg	2006	4326	Steyr	2008
2222	Telfs	2005	4104	Deutschlandsberg	2008	4327	Amstetten	2005
2223	Innsbruck	2005	4105	Kalsdorf bei Graz	2008	4328	Scheibbs	2005
2224	Schwaz	2007	4106	Feldbach	2008	4329	Wilhelmsburg	2006
2225	Sankt Anton am Arlberg	2004	4107	Klagenfurt	2004	4330	Neulengbach	2003
2226	Landeck	2005	4108	Sankt Veit an der Glan	2006	5101	Jennersdorf	2009
2227	Längelfeld	2007	4109	Sankt Paul im Lavanttal	2006	5107	Sicheldorf	2009
2228	Neustift im Stubaital	2007	4110	Eibiswald	2008	5201	Wiener Neustadt	2006
2229	Fulpmes	2007	4111	Leibnitz	2008	5202	Eisenstadt	2002
2230	Mayrhofen	2003	4112	Bad Radkersburg	2008	5203	Neusiedl am See	2001
3101	Sankt Jakob in Defereggan	2003	4113	Ferlach	2009	5204	Nickelsdorf	2004
3102	Hopfgarten in Defereggan	2003	4114	Bad Eisenkappel	2005	5207	Neunkirchen	2006
3103	Lienz	2008	4115	Bleiburg	2006	5208	Mattersburg	2003
3104	Obervellach	2008	4201	Kirchdorf an der Krems	2007	5209	Ilmitz	2004
3105	Millstatt	2008	4202	Ternberg	2007	5210	Andau	2004
3106	Radenthein	2005	4203	Waidhofen an der Ybbs	2005	5213	Aspang-Markt	2006
3107	Innichen	2003	4204	Gaming	2005	5214	Oberpullendorf	2003
3108	Sillian	2003	4205	Sankt Aegyd am Neuwalde	2007	5215	Sankt Nikolaus	2004
3109	Oberdrauburg	2008	4206	Pernitz	2006	5219	Oberwart	2006
3110	Kötschach-Mauthen	2008	4207	Windischgarsten	2007	5220	Rechnitz	2006
3111	Spittal an der Drau	2008	4208	Spital am Pyhm	2007	5225	Fürstenfeld	2008
3112	Villach	2004	4209	Hiefau	2007	5226	Kohfidisch	2009
3116	Sonnenalpe Naßfeld	2009	4210	Mariazell	2007	5307	Haugsdorf	2004
3117	Nötsch im Gailtal	2009	4211	Neuberg an der Mürz	2007	5308	Laa an der Thaya	2003
3118	Arnoldstein	2005	4212	Mürzzuschlag	2006	5309	Hohenau an der March	2003
3203	Oberndorf bei Salzburg	2004	4213	Liezen	2004	5313	Hollabrunn	2004
3204	Salzburg	2003	4214	Trieben	2007	5314	Mistelbach	2003
3205	Mondsee	2003	4215	Eisenerz	2007	5315	Zistersdorf	2003
3206	Gmunden	2003	4216	Bruck an der Mur	2007	5319	Tulln	2004
3207	Ebbs	2007	4217	Kindberg	2007	5320	Wien	2003
3208	Kössen	2003	4218	Vorau	2006	5321	Gänserndorf	2003
3209	Großgmain	2005	4219	Oberwölz	2004	5325	Baden	2004
3210	Hallein	2005	4220	Pöls	2006	5326	Schwechat	2003
3211	Bad Ischl	2003	4221	Knittelfeld	2006	5327	Bruck an der Leitha	2003
3212	Bad Aussee	2003	4222	Leoben	2006	5328	Pressburg	2004
3213	Kufstein	2007	4223	Weiz	2006			
3214	Kitzbühel	2003	4224	Harlberg	2006			
3215	Saalfelden am Steinernen	2005	4225	Murau	2003			
3216	Bischofshofen	2005	4226	Judenburg	2003			
3217	Hallstatt	2005	4227	Zeltweg	2006			
3218	Bad Mitterndorf	2004	4228	Voltsberg	2006			
3219	Neukirchen am	2007	4229	Graz	2006			

Map already published

Production-caused publication can retard in relation to the indicated values.