

Country Profile: Austria

Country Profile (PDF)

Country Resources

Topographic

Series	Publisher	Scale	Years	Sheets
Switzerland 1:300,000 Scale Topographic Map	SWISSTOPO	1:300,000	2012	1

Aeronautical

Series	Publisher	Scale	Years	Sheets
Austria 1:500,000 Scale Aeronautical Chart	DFS	1:500,000	2016	1
Germany 1:500,000 Scale Aeronautical Charts	DFS	1:500,000	2019	8

Geoscientific

Series	Publisher	Scale	Years	Sheets
Switzerland 1:500,000 Scale Geological Map	SGS	1:500,000	2005	1

Thematic

Series	Publisher	Scale	Years	Sheets
The World 1:30,000,000 Scale Topographic Map Series 1145 (NGA)	DMA	1:30,000,000		2

Global Census Archive: GIS Census Data

East View Geospatial has an ongoing effort to add GIS census data to our Global Census Archive program. Please contact us for the status and availability of Austria census resources.

Global Resources

Topographic

Series	Publisher	Scale	Years	Sheets
Soviet Military City Plans	VTU GSh	Varies	1944 - 2003	3,020
Soviet Military 1:100,000 Scale Topographic Maps	VTU GSh	1:100,000	1947 - 1999	24,897
Soviet Military 1:200,000 Scale Topographic Maps	VTU GSh	1:200,000	1949 - 2009	17,799
Soviet Military 1:500,000 Scale Topographic Maps	VTU GSh	1:500,000	1953 - 1998	3,093

Nautical

Series	Publisher	Scale	Years	Sheets
NGA Nautical Charts POD Certified (All Scales)	NGA	Varies	1943 - 2013	4,517

Aeronautical

Series	Publisher	Scale	Years	Sheets
Joint Operations Graphic (JOG 1501A) 1:250,000 – Aeronautical	DMA	1:250,000	1958 – 2007	4,204
Tactical Pilotage Chart (TPC) 1:500,000 Scale – Aeronautical	DMA	1:500,000	1967 – 2006	598
Operational Navigation Chart (ONC) 1:1,000,000 Scale – Aeronautical	DMA	1:1,000,000	1969 – 2001	243
Jet Navigation Chart (JNC) 1:2,000,000 Scale – Aeronautical	DMA	1:2,000,000	1971 – 1999	117
Global Navigation and Planning Chart (GNC) 1:5,000,000 Scale – Aeronautical	DMA	1:5,000,000	1981 – 1999	27

Geoscientific

Series	Publisher	Scale	Years	Sheets
Soviet Military 1:1,000,000 Scale Topographic Maps	VTU GSh	1:1,000,000	1948 – 1994	1,089

Note: East View Geospatial is continuously sourcing new resources that may not yet be listed in Global Explorer. Please contact us if you have geodata needs beyond what is listed above and we will be happy to discuss available off-the-shelf and custom solutions.

Shop all products in Global Explorer

Historical Country Mapping Information

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Country Profile (PDF)

Topographic

The **Bundesamt für Eich-und Vermessungswesen (BEV)** is the civilian national mapping agency in Austria. It was established under that name in 1945, but Austria has a long history of officially sponsored systematic surveys which can be traced back to 1764 and the first *Landesaufnahme*.

Topographic mapping of the country is compiled at 1:50,000 scale, the mapping is based upon the Gauss-Krüger projection, and the series started in the 1920s. It is now derived from photogrammetric survey, with relief shown with 20 m contours and hill shading. Two hundred and thirteen sheets are needed to provide complete coverage, the series is divided on a graticular basis, each sheet covers 15’ longitude by 15’ latitude and is numbered sequentially. This system has supplanted an experiment with grid-based *Bundesmeldenetz* numbering in the early 1980s. Most sheets are available in four different versions: a seven-color map without footpaths or road fills; an edition with colored roads; a version with marked footpaths shown in red and a three-color base map. The revision program for this map generates new editions on average every six to eight years. A 1:25,000 scale photographic enlargement of the 1:50,000 map is also published by **BEV**, as a double-sided map, in a walkers edition, or as a three-color base map.

Data capture and release of vector data derived from the ÖK50 series is progressing and an increasing number of themes are becoming available as structured data: road and railway information, boundaries, hydrology and the 120,000 geographical names were available by 1996. Data from the 1:50,000 scale map are also available in a number of different color and black and white raster formats.

The whole country is also mapped at 1:5,000 and 1:10,000 scales. The *Österreichische Luftbildkarte (ÖLK10)* is a 1:10,000 scale orthophotomap fitted to the Gauss-Krüger net. Sheets cover 5 × 5 km and comprise black and white photomaps derived from 1:30,000 scale aerial coverage, overprinted with a 1 km grid, some names and limited cartographic enhancement. The series comprises 3,630 sheets, and is based on aerial coverage flown since 1976. For some higher priority areas the 1:5,000 scale *Basiskarte (ÖBK5)* has been published since 1983, but there are no plans to offer a national coverage comparable to the 1:10,000 scale series. Like (ÖLK10) the Basiskarte is an orthophotomap, however cadastral and contour data are also available as transparent overlays with orthophoto coverage. Orthophoto mapping has been produced using a digital flow-line since 1993, and digital orthophoto data are gradually becoming available in a variety of formats. A byproduct of the orthophoto mapping was been the derivation of a digital terrain database, completed between 1976 and 1988, and available at resolutions of up to 50 m. From 1989 1:15.000 scale aerial coverage has been used,

and more accurate DTM data is being collected, 40 percent national coverage having been reached by late in 1996.

The 23-sheet 1:200,000 scale Österreichische Karte was completed in 1992 having replaced the earlier *Generalkarte von Mitteleuropa*. It is compiled by generalization of 1:50,000 scale map data, uses a 100 meter contour interval and hill shading, and is available with or without a colored road fill, and as a four-color base map. Sheets cover degree quadrangles. There is also a photographic enlargement of this scale to 1:100,000, and a larger format sheet covering Burgenland. Raster scanned data from the 1:200,000 scale map are also available, with similar specifications to those used for 1:50,000 scale information.

Other maps produced by **BEV** include the single sheet 1:500,000 scale *Übersichtskarte von Österreich*, on the Lambert conformal conic projection. Three main printed versions of this map are available, each in several different forms. The first is published as a topographic edition, with or without an index to place names and grid, as a two-color topographic base with a red and yellow roads overprint. It is also available as a political edition, without the roads, in four different versions, and finally as a base map, with various overprints. The *Übersichtskarte von Österreich* has been digitized and like the 1:50,000 map is available in a variety of vector and raster formats. **BEV** also publishes a number of regional maps of tourist areas.

The Austrian military mapping agency **Institut für Militärische Geowesen (IMG)** collaborates with **BEV** in the production of military topographic mapping. Plans were released in 1999 for the generation of new digital mapping, conforming to NATO Joint Operation Graphic standards and on the UTM projection, WGS 84 spheroid. This will result in 191 1:50,000 scale map sheets produced using six-color printing, with overlaps to adjacent sheets. A new 1:250,000 scale series is replacing military editions of the 1:200,000 map.

Soviet military topographic mapping of Austria is available at the following scales: 1:1,000,000 (3 sheets, complete coverage, published 1981-1990); 1:500,000 (5 sheets, complete coverage, published 1979-1987); 1:200,000 (32 sheets, complete coverage, published 1972-1995); 1:100,000 (89 sheets, complete coverage, published 1977-1991); 1:50,000 (297 sheets, complete coverage, published 1981-1991) and city (1:10,000) topographic mapping of 12 major cities from Baden to Vienna published between 1949 and 1981. These products are available in print, digital raster and digital vector GIS formats from **East View Geospatial**.

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GIS/Vector

Many census boundaries and attribute data are available on CD-ROM. The *ArcAustria* product range packages **ÖSTZ** census data derived from their ISIS database, with digital Lander, Bezirke and Gemeinde boundaries, and road, railway, waterways and settlement coverages from the **BEV** 1:500,000 scale vector database. Raster data geo-referenced to **BEV** 1:500,000 scale vectors are also available. More detailed coverage of Wien is released, derived from 1:2,000 scale mapping.

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Aeronautical

Aeronautical charting of Austria is published by **Bundesministerium für Öffentliche Wirtschaft und Verkehr (BMV)** to conform with ICAO standards. A single 1:500,000 scale sheet covers the country.

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Geological/Scientific

Earth science mapping of Austria is the responsibility of the **Geologische Bundesanstalt (GB)**. Its history can be traced back to the founding of the **Geologische Reichsanstalt** in 1849. Modern systematic geological mapping onto 1:25,000 scale base maps (from 1891), led to the publication of the 1:75,000 Spezialkarte which was the standard scale until adoption of 1:50,000 mapping on topographic sheet lines in the 1950s. A few 1:75,000 scale sheets are still available. Publication of the 1:50,000 program accelerated in the 1980s, about 10

sheets a year are currently being completed, and 70 percent of the country was covered by 2000. Sheets are published with accompanying explanatory monographs and a few are issued at 1:25,000 scale. Along with most other western earth science agencies policy changes in GB from the late 1970s have seen a greater emphasis upon research and applied earth scientific mapping projects including the publication of hazard and engineering geology maps. An aeromagnetic series on 1:50,000 sheet lines covers the western half of the country. A variety of smaller-scale mapping is also issued including several themes at 1:500,000 and 1:1,000,000, such as the *Geochemischer Atlas der Republik Österreich* which presents 35 1:1,000,000 scale mineral distribution maps of the country.

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Imagery

There have been a number of experiments with the use of satellite imagery in cartographic production, notably sponsored by **ÖAkW**, but none has resulted in large programs of published image map series of the country. The **Abteilung für Raumbezogene Informationsverarbeitung** of **ÖAkW** continues the work of the **Kommission für Kartographie**, but is mainly concerned with research into the interpretation and visualization of spatial information from remotely sensed data, and has only rarely published mapping. **Geospace Verlag (Geospace)** launched a 1:200,000 series of image maps on topographic sheet lines in 1983, but only five sheets had been published by 1999. **Geospace** has also chosen to publish sample image sheets for twelve popular areas at 1:50,000 on **BEV** sheet lines, and concentrates its publication efforts on the production of image atlases and poster products for the education market. Recent initiatives include the publication of CD-ROM-based image atlases of Austria and Germany. **Geospace** offers a service for generation of customized 1:50,000 scale mapping of anywhere in the world, derived from SPOT data, and also publishes an international range of image maps, posters and atlases. LANDSAT imagery has been used as bases in several atlases, notably the *Landeskündlicher Luftbildatlas Salzburg*, in the *Linzer Atlas* and in some sheets of the *Tirol Atlas*.

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Soil

The **Institut für Bodenkultur (IB)** is responsible for 1:5,000 and 1:25,000 scale basic soil mapping of agricultural areas. 1:25,000 scale maps are being issued for the 200 Gerichtsbezirke (the internal judicial districts), along with a monograph for each map. The fieldwork program was completed by 1992 and about 140 Bezirke were available in 1997, as fully published editions, most of the others being available as interim versions. The current specification is a five-color map. **IB** is capturing the soil data in digital form, developing *BZIMAP* as a visualizing medium, in conjunction with the soil monitoring agencies of the different Lander, and integrating these data with the CUBIS system, an ARC/INFO-ORACLE-based computer-aided soil information system.

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Thematic

The **Bundesministerium für Land - und Forstwirtschaft (BLF)** has been active in the compilation of a variety of hydrological mapping projects. These have included water quality coverage for each Land at 1:200,000 scale, and water use mapping.

Digital water quality data from **BLF** is available with other spatially referenced environmental data.

The **Österreichisches Ost- und Südosteuropa-Institut (ÖOSI)** is a significant regional research institute whose remit includes the thematic mapping of large areas of Southeast Europe. **ÖOSI** has completed one major international project (the *Atlas der Donauländer*) and a second is in progress (*Atlas Ost- und Südosteuropa*).

The **Zentralanstalt für Meteorologie und Geodynamik (ZMG)** has published a variety of climatic mapping of the country, including the ongoing series *Klimakarten von Österreich* at 1:1,500,000 scale and a number of different editions at 1:500,000 scale covering themes

such as snow cover, temperatures, precipitation and wind distribution.

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Atlas

Since the end of World War II atlas cartography has played a significant part in the Austrian cartographic enterprise. The national atlas of Austria was published in instalments over a 20-year period by the **Kommission für Raumforschung** of the **Österreichische Akademie der Wissenschaften (ÖAkW)** following compilation and printing by **Freytag Berndt und Artaria**. A standard range of themes were mapped, mainly at 1:1,000,000 scale, progressing from physical background through natural resources to human, social, economic and cultural geography. The 12 sections were completed in 1980 and are still available. Other thematic national coverage is provided in *Atlas zur räumlichen Entwicklung Österreichs*, a looseleaf planning atlas in progress since 1984 from **Österreichisches Institut für Raumplanung (ÖIR)**. Plans are well advanced for a revision to the national atlas. The **Institut für Kartographie und Reproduktionstechnik** of the **University of Wien** is producing the printed volume, and is designing a parallel electronic interactive cartographic information system, which will include view-only topographic and thematic maps, and data with photos animations and videos, as well as cartographic analysis and searching tools to manipulate data sets from **ÖSTZ**.

In addition to national overviews more detailed regional atlas projects have also been carried out. Thematic regional atlases of the different Bundesländer were particularly popular in the 1950s, when projects for Niederösterreich, Oberösterreich, Kärnten, Salzburg and Steiermark were started or completed. More recently this tradition has continued in Tirol and Wien. The *Tirol Atlas* from the **Institut für Geographie** of the University of Innsbruck was completed in 1998, after 29 years of publication by instalment, and comprises over 100 map sheets available through **Universitätsverlag Wagner**. Another recent initiative still in progress is the *Planungsatlas für Wien*, from the **Magistrat der Stadt Wien**, which will result in twelve 1:100,000 scale thematic sections. Other parts of the Magistrat also publish mapping, notably the **Wiener Stadt- und Landesarchiv** which issues historical atlases of the city and of a number of other Austrian historical towns. **The City Surveying Department** also compiles a wide range of digital mapping of Wien, output at scales between 1:200 and 1:10,000. Many of these regional initiatives have been underwritten by their respective regional governments.

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Tourist/Reference

There are a number of commercial mapping organizations in Austria, catering in particular for the Alpine tourist market. **Freytag Berndt (FB)** publish extensive ranges of walking maps at 1:25,000, 1:50,000 and 1:100,000 scales, covering the whole country in over 100 sheets. **FB** is the most significant general commercial publisher in the country with a wide general range of products, such as town maps and international road and tourist maps. They also recently released a range of CD-based electronic atlases.

The **Österreichischer Alpenverein** publishes topographic mapping of mountain areas, in particular a range of about 70 maps of the Eastern Alps. These maps build on a 130 year history of publication, and are high quality products, usually at 1:25,000 scale, with a 20 m contour interval, and overprints showing marked walking or ski routes. The **Alpenverein** also publishes a range of expedition maps covering massifs in the Andes and Himalayas. **Cartoconsult** also concentrates upon maps of mountainous areas, with satellite image mapping of mountainous areas. The *Kompass Wanderkarten* series of hiking maps from **Fleischmann und Mair** extends throughout the eastern Alps to cover large areas of Austria, Germany and Northern Italy mostly at 1:50,000. Other *Kompass* products include specialist cycling maps, a range of town maps, panorama maps of the Alps and 1:250,000 scale administrative mapping of Austria. **Mayr Verlag**, Innsbruck also issues a number of *Wanderkarten* of the Tirol region. **Eduard Hölzel** concentrates upon the educational market and atlas publication, and the **Austrian Press Agency (APA)** issues a CD-ROM of small scale world maps.

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Census/Demography/Statistics

Administrative maps and place name lists of Austria are prepared by the **Österreichisches Statistisches Zentralamt (ÖSTZ)**. These include census enumeration boundary mapping for the 10-yearly censuses. The 1,981 maps, have overprinted boundaries in violet on 1:50,000 scale topographic bases. The 1991 boundaries are available as transparent overlays to be used in conjunction with the topographic sheet, and have also been digitized. Built-up areas with small census units are available at 1:25,000 scale, to supplement the majority of 1:50,000 scale coverage. These printed hard-copy boundary maps are sold in packages with two types of overprint, a five-color map illustrating types of boundary, tabulations of key census data, a textual explanation, and a general settlement map. Digital versions of these boundaries and the census data relating to them are available in a variety of formats. **ÖSTZ** also prepares smaller scale administrative mapping. The 1:750,000 scale Karte der Stadtregionen Österreichs 1991 appeared late in 1996 and mapped the extent of urban development and influence. The 1:1,000,000 scale political map and 1:500,000 scale Karte der Gemeindegrenzen are revised annually, as is 1:2,000,000 scale administrative coverage. A new map was published in 1995, in hard copy or as digital ARC/INFO format data, and shows NUTS 1, 2 and 3 level boundaries. **ÖSTZ** also publishes lists of place names derived from the census. The latest Ortsverzeichnis 1991 is available.

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