

EUREF 2011 Symposium

National Report of Austria

by

Günter Stangl, Norbert Höggerl,
Erich Imrek, Ernst Zahn
Diethard Ruess, Sandro Krauss (IWF)

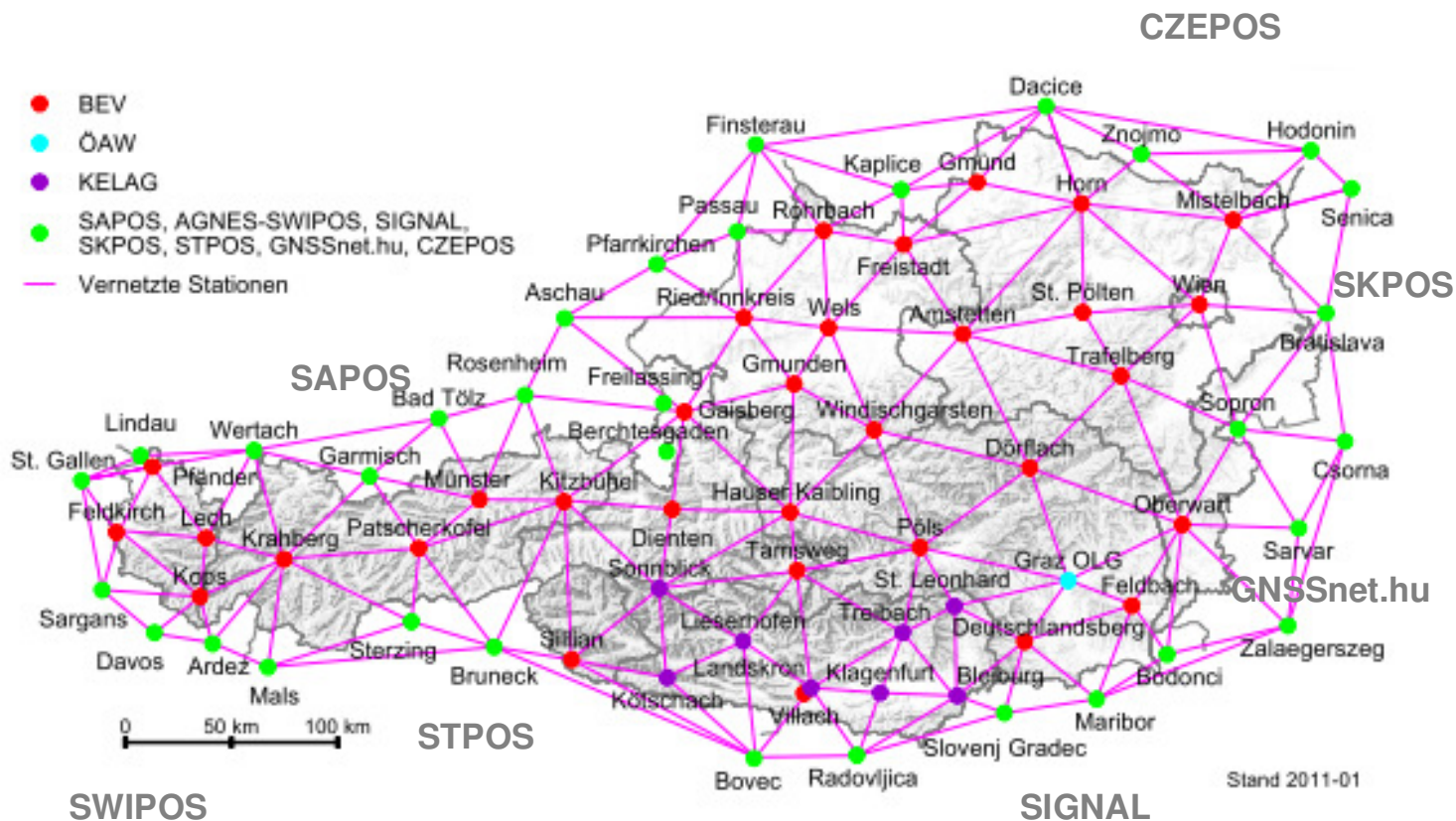
Chisinau, Moldova

May 25th to May 28th, 2011

Cooperation between BEV and OLG¹⁾

Federal Office of Metrology and Surveying (BEV)

APOS – Austrian Positioning Service



From GPS to GNSS

GPS+GLONASS+GALILEO-ready
All stations in Austria during 2010

Central Computing Software:
Trimble GPSnet → VRS3net

Change of IT hardware:
2 redundant computing centers

Clearing of GNSS:
23rd of May

GIS Grid (NTv2)

From ETRS89 → national MGI
1 σ : ± 4 cm
Via NTRIP/RTCM 3.1

Punktkarte ETRS89

Triangulierungspunkt 163-118



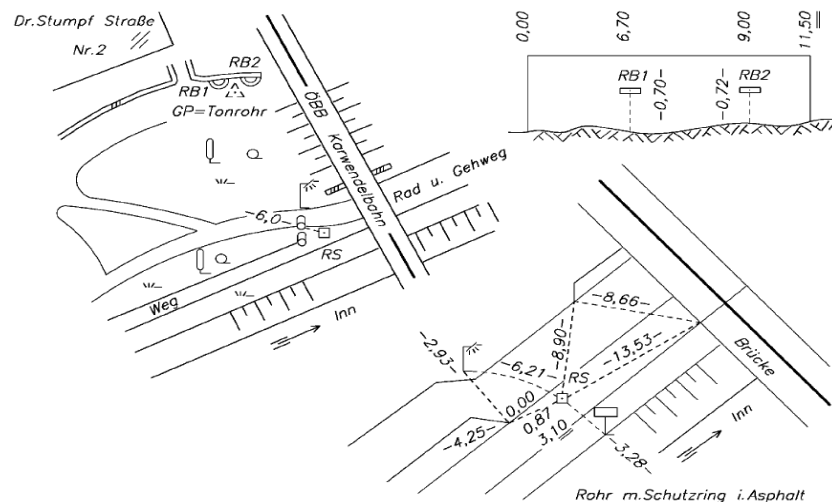
Punktname: KARWENDELBAHNBRÜCKE
 Ordnung: 5
 Auflage der Punktkarte: 5
 UTM-Blattnr. ÖK50: 2223, Zone 32
 Bundesland: Tirol
 Politische Gemeinde: Innsbruck
 Vermessungsbezirk: Innsbruck
 Katastralgemeinde (Nr.): Hötting (81111)
 Punkthinweis: EHG
 Letzte Begehung: 06.06.2001



KZ	X [m]	Y [m]	Z [m]	Breite [° ' '']	Länge [° ' '']	Höhe _{ell} [m]	RW _{UTM} [m]	HW _{UTM} [m]
R2	4251930,062	855476,142	4661697,369	47° 15' 26,82843"	11° 22' 33,13157"	625,845	679753,40	5236512,33
R1	4251931,630	855474,987	4661696,146	47° 15' 26,77042"	11° 22' 33,06301"	625,836	679752,02	5236510,50
C1	4251930,755	855476,972	4661695,310	47° 15' 26,76314"	11° 22' 33,16377"	624,906	679754,14	5236510,34
C2	4251939,973	855499,307	4661684,731	47° 15' 26,21102"	11° 22' 34,11863"	626,260	679774,73	5236493,90
KZ	Stabilisierung, Bezug				SHW	N _{GRS80} [m]	N _{BESSEL} [m]	
R2	RB/2/OBERFLÄCHE					49,364	1,108	
R1	RB/1/OBERFLÄCHE					49,364	1,108	
C1	ROHR/= GP/OBERFLÄCHE					49,364	1,108	
C2	RS/OBERFLÄCHE					49,364	1,108	
mX [m]		mY [m]	mZ [m]	vX [m/Jahr]	vY [m/Jahr]	vZ [m/Jahr]	Koordinatenbestimmungsart	
+/- 0,006		+/- 0,003		+/- 0,005		+/- 0,000	aus GPS Basislinien abgeleitet	
Geodätisches Datum / Epoche							Messdatum (kartesisch)	
ETRS89/AUSTRIA 2002							18.09.2002	

Lage- und Wegbeschreibung:

Teil 1 / 1



ETRS89 – Coordinates

Presentation via online service

EGA - eGeodata Austria

2011-05-01:

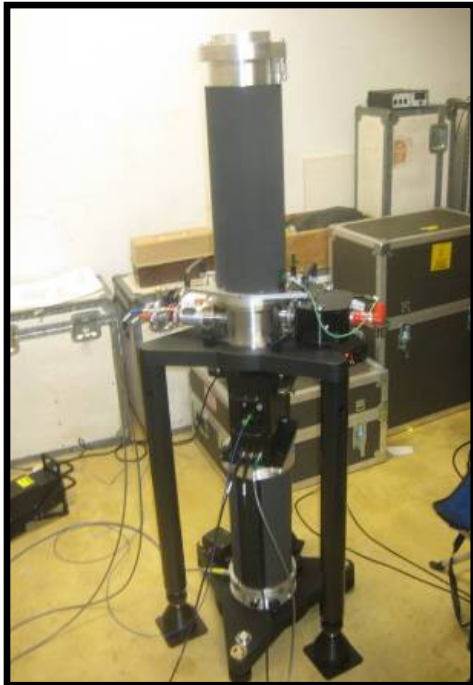
38.100 coordinates of control points

Available in ascii or csv format

Base of ETRS89 coordinates:

EUREF-campaign 2002

Acquisition of absolute gravity meter FG-5



Cooperation between:

BEV – Federal Office of Metrology and Surveying

ZAMG – Central Institute for Meteorology and Geodynamic

Main objectives:

- Gravity base network
- ECGN points like Trafelberg at the Conrad Observatory (COBS)