

European Position Determination System

Brief update report

Gerd Rosenthal

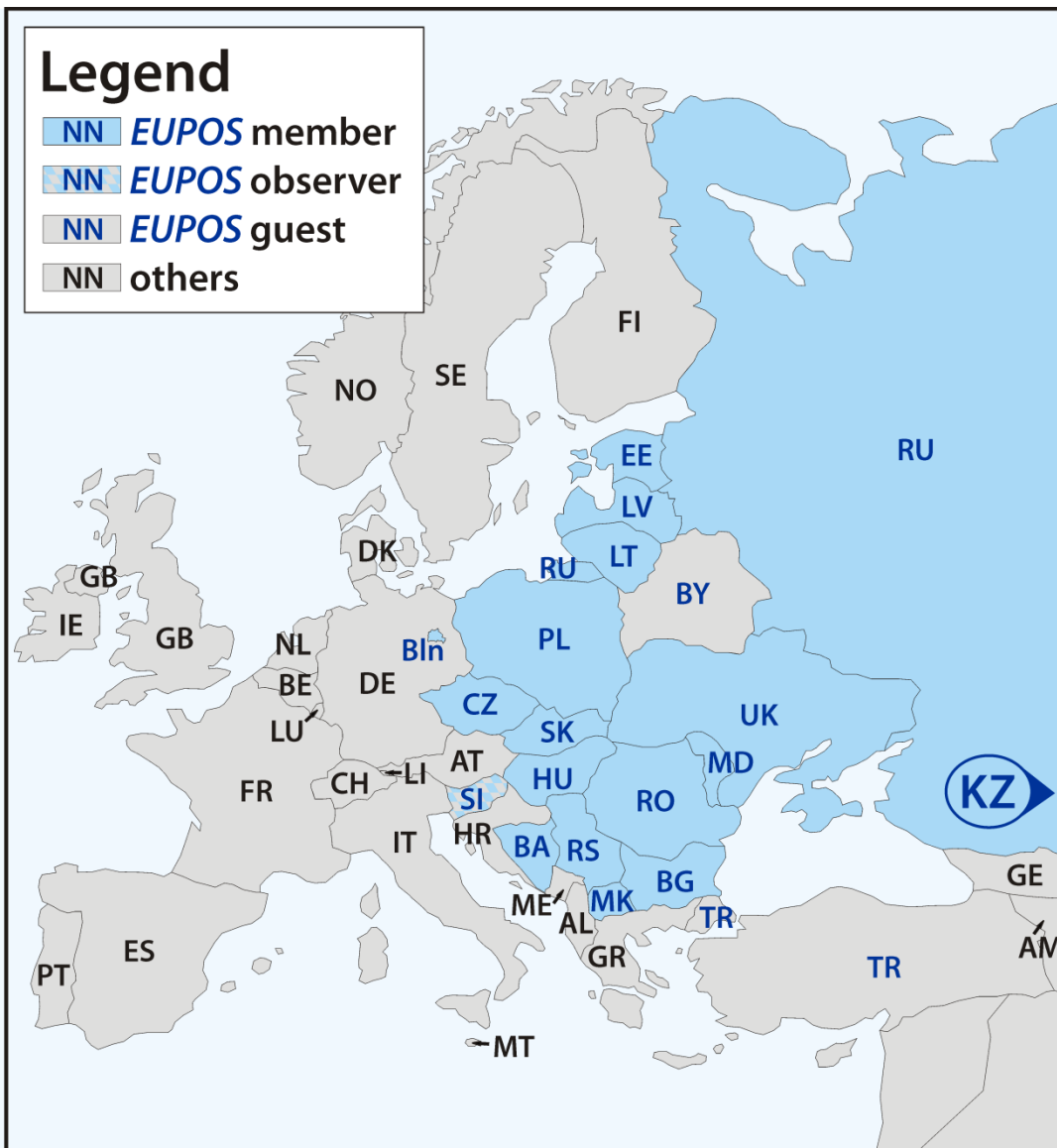
Office of the International *EUPOS*[®] Steering Committee
c/o Senate Department for Urban Development, Land Berlin, Germany



Fourth Meeting of the
International Committee on Global Navigation Satellite Systems
St. Petersburg, Russian Federation
8-12 December 2009

Legend

- NN **EUPOS member**
- NN **EUPOS observer**
- NN **EUPOS guest**
- NN **others**



EUPOS members

- Bosnia and Herzegovina
- Republic of Bulgaria
- Czech Republic
- German state Berlin (ISCO)
- Republic of Estonia
- Republic of Hungary
- Republic of Kazakhstan
- Republic of Latvia
- Republic of Lithuania
- (FYROM) Republic of Macedonia
- Republic of Moldova
- Republic of Poland
- Romania
- Russian Federation
- Serbia
- Slovak Republic
- Ukraine
- Slovenia (observer)

<i>EUPOS</i> Country (ISO 3166)	Areal [km ²]	Planned RS	Realised RS	<i>EUPOS</i> Country (ISO 3166)	Area [km ²]	Planned RS	Realised RS
BA	51,000	26	<i>(in 2009)</i>	LT	65,300	25	25
BG	110,950	23	12	MK (FYROM)	25,434	14	7
CZ	78,870	27	27	MD	33,700	15	2
DE/ Berlin	891	4	4	PL	323,520	98	98
EE	45,220	17	9	RO	237,500	73	58
HU	93,030	36	35	RU	17,075,400	> 100	> 100
KZ	2,724,900	500	0	RS	88,360	32	32
LV	64,600	19	19	SK	46,035	21	21
LV/ Riga City	307	5	5	UA	603,700	27+	9
SI (Observer)	20,270	15	15	Sum	21,688,987	977+RU	404+RU

EUPOS Station Data Base

EUPOS-ESDB - Windows Internet Explorer
 http://www.eupos.hu/EUPOS-ESDB.php

EUPOS
 European Position Determination System

Station DataBase

Berlin, Germany	Bosnia and Herzegovina	Bulgaria	Czech Republic	Estonia	Hungary
Kazakhstan	Latvia	Lithuania	Macedonia	Moldova	Poland
Romania	Russia	Serbia	Slovakia	Slovenia	Ukraine

EUPOS Stations Map

ESDB Club Login
 User Name:
 Password:
 Enter

Internet | Geschützter Modus: Aktiv | 100%

<http://www.eupos.hu/EUPOS-ESDB.php>

EUPOS Station Data Base

Station DataBase

Map of EUPOS Reference Stations

BEOG (A36)
Beograd, Serbia

<http://www.eupos.hu/EUPOS-ESDB.php>

EUPOS Station Data Base

The screenshot shows a web browser window with the URL <http://www.eupos.hu/stations1.php?country=poland>. The page displays a table of EUPOS Reference Stations in Poland. The table is titled "EUPOS Reference Stations in Poland" and is organized into columns for station identification and two types of coordinates: Cartesian and Geographic.

EUPOS Reference Stations in Poland			Approximate ETRS 89 Cartesian coordinates			Approximate ETRS 89 Geographic coordinates						
Station ID	City or Town	RTCM ID	X	Y	Z	Latitude			Longitude			Height
			[m]	[m]	[m]	[°]	[']	["]	[°]	[']	["]	[m]
BART	Bartoszyce	BART	3490900	1327100	5153200	+54	15	0	+020	48	60	90
BIAL	Bialystok	BIAL	3526500	1507000	5079500	+53	07	60	+023	08	20	190
BILG	Bilgoraj	BILG	3747400	1569000	4900800	+50	31	50	+022	43	10	240
BOGI	Borowa Gora	BOGI	3633800	1397500	5035300	+52	28	30	+021	02	10	140
BOR1	Borowiec	BOR1	3738400	1148200	5021800	+52	16	40	+017	04	20	120
BPDL	Biala Podlaska	BPDL	3616000	1544400	5005400	+52	02	10	+023	07	40	200
BRAN	Bransk	BRAN	3566400	1502000	5053300	+52	44	30	+022	50	20	170
BUZD	Busko Zdroj	BUZD	3805100	1439300	4896200	+50	27	60	+020	43	10	300
BYDG	Bydgoszcz	BYDG	3647200	1184600	5079600	+53	08	0	+017	59	40	100
CBKA	Warszawa	CBKA	3654400	1407800	5017600	+52	12	50	+021	04	0	130
CCHN	Ciechanow	CCHN	3610600	1357000	5062800	+52	52	60	+020	35	50	170
CHEL	Chelm	CHEL	3678800	1598100	4942800	+51	07	50	+023	28	50	260
CHOJ	Chojnice	CHOJ	3608500	1141400	5116900	+53	41	40	+017	33	10	200
CHOS	Choszczno	CHOS	3694300	1018600	5081600	+53	09	50	+015	24	50	110


The browser's address bar shows the URL <http://www.eupos.hu/EUPOS-ESDB.php>, which is highlighted in a blue box at the bottom of the screenshot.

EUPOS Station Data Base

Berlin - Windows Internet Explorer

http://www.eupos.hu/stations.php?country=berlin

Back Log Out



EUPOS Point of Contact in Berlin

Agency	Preferred Abbreviation	Mailing Address	Primary Contact				
			Contact Name	Telephone (primary)	Telephone (secondary)	Fax	
SENATSV ERWALTUNG FU ER STADTENTWICKLUNG, REFERAT III B FEHRBELLINER PLATZ 1, 10707 BERLIN		SAPOS.INFO S@SENSTADT.BERLIN.DE	DETLEF HARDEL	0049-30-90127437		0049-30-90123709	DETLEF.HAR

EUPOS Reference Stations in Berlin

SITE LOG	FORM						Site Name	Four Character ID	RTCM ID	Monument Inscription	IERS D
	Actual Site Log	Prepared by	Date Prepared	Report Type	If Update						
					Previous Site Log	Modified/Added Sections					
0896	View	Schwarz, Lars	2008-05-26	UPDATE	0896_20080131.log	3.1	BERLIN-WILMERSDORF	0896	0896		
0897	View	Schwarz, Lars	2008-05-26	UPDATE	0897_20080130.log	3.1	BERLIN-WITTENAU	0897	0897		

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<http://www.eupos.hu/EUPOS-ESDB.php>

Some selected *EUPOS* activities

Testing and verification of a procedure to determine near-field multipath effects at ground-based Differential GNSS reference stations, developed by Geo++ and operated by Geo++ GmbH and Berlin. First results are expected in November 2009.

Development of Private Service Messages (RTCM data encryption) in the frame of the Radio Technical Commission for Maritime Services (RTCM).

To draft a definition of interoperability applicable to ground-based Differential GNSS (DGNSS) networks and services together with IGS (ICG/WGA/SEP2007).

“Full scale accuracy” DGNSS demonstration projects of Malawi with Topcon and Geo++ and Ghanawith Leica Geosystems

Berlin GNSS Symposium 2009, one of a number of Symposia and Workshops which started in 2008






International Symposium on Global Navigation Satellite Systems, Space-Based and Ground-Based Augmentation Systems and Applications



Berlin, Germany
11-14 November 2008
organised and co-organised by the Federal State of Berlin, represented by the Senate Department for Urban Development, the International EUPOS Steering Committee, the International Committee on Global Navigation Satellite Systems and the United Nations Office for Outer Space Affairs

Lectures, trade exhibition, excursions

Location of the event is the EnergieForum Berlin, Stralauer Platz 24, 10243 Berlin

Contact:
Berlin Senate Department for Urban Development
Division III - Geoinformation, Land Surveying, Valuation
Section III - Geodesic Reference Systems
Fehrbellener Platz 1, 10707 Berlin, Germany
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Organiser's and co-organiser's links:
www.stadtwicklung.berlin.de www.eupos.org www.unoosa.org/boosa/inf/SAP/nuicg.html



**United Nations/Azerbaijan/European Space Agency/
United States of America Workshop on the Applications of
Global Navigation Satellite Systems,
11-15 May 2009, Baku, Azerbaijan**






International Symposium on Global Navigation Satellite Systems, Space-Based and Ground-Based Augmentation Systems and Applications 2009



Berlin, Germany, 30 November - 2 December 2009

Location of the event is the Rathaus Wilmersdorf
Fehrbellener Platz 4, 10707 Berlin, Germany

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www.stadtwicklung.berlin.de www.eupos.org www.unoosa.org www.icgsecretariat.org

United Nations/Azerbaijan/United States of America/ European Space Agency Workshop on the Applications of Global Navigation Satellite Systems, Baku, Azerbaijan, 11–15 May 2009

(Raw formulation of a recommendation) ... Recognizing the potential of space-based geodetic techniques, in particular the GNSS and DGNSS reference station networks, for the use of a modern and precise continental reference frame in Eurasian tectonic plate to reach interoperability between different countries, the Workshop promote following recommendations:

1. Use the reference frame ETRF in Eurasia.
2. Taking in account the progress of EUREF, EUPOS in Central and Eastern Europe, and SIRGAS in Latin America and the Caribbean, and willingness to follow this experience by some Eurasian countries, the Workshop encourages these countries to apply membership in EUREF and EUPOS. ...

Useful links for further information on *EUPOS*

EUPOS Website

<http://www.eupos.org/>

EUPOS Newsletters



The *EUPOS* ISCO started August 2009 to provide two newsletters p.a. If you would be interested, please mail to: eupos.isco@senstadt.berlin.de

International issues of the Senate Department for Urban Development of the Land Berlin in the field of geoinformation (German language)

http://www.stadtentwicklung.berlin.de/internationales_eu/geoinformation/

Thank you for your attention!

Gerd Rosenthal

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