

# The Serbian reference gravity network

Metadata Export - GEO-WB6 GIS Portal

**Export Date:** December 11, 2025 17:16 | **Identifier:** 88868bc5-a5db-4f8c-adc9-928b9ccc0eae | **Resource Type:** Dataset

## BASIC INFORMATION

*Core identification information for the metadata record*

**Title:** The Serbian reference gravity network

**Country:** Serbia (srb)

**Abstract:** The fundamental gravimetric network represents the gravimetric reference frame of the Republic of Serbia, which is materialized by a set of permanently stabilized points with determined Earth's gravity absolute acceleration values referring to the realization epoch 1971.0 of the IGSN71 system (International gravimetric standard network).

The gravimetric network is a closed polygons system containing 75 reference points that cover the Serbian territory at average distances from 50 to 70 km. The gravity network structure includes fundamental benchmarks of the Second-order High Accuracy Levelling network (NVT2 project), points of the spatial reference network (SREF project), and also the 3 fiducial points with measured absolute gravity.

**Resource Type:** Dataset

**Language:** English

**Resource Locator:** <https://a3.geosrbija.rs/share/78aee5378cfc>

## GRAPHIC OVERVIEW

■ [Open Graphic Overview in New Tab](#)

**URL:** [GraphicOverviews/srb/7238299f-cfce-4977-b722-22de74907dde.png](#)

## CLASSIFICATION AND KEYWORDS

*Categorization and keyword information*

**Topic Categories:** geoscientificInformation, location

**Keywords:** [Coordinate reference systems](#) [Digital terrain model](#) [Earth gravity acceleration](#) [Gravimetry](#) [IGSN71 reference system](#) [National Physical normal heighth system](#) [Quasigeoid surface](#)

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## GEOGRAPHIC INFORMATION

*Geographic extent and bounding box*

**Bounding Box:** Not specified

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**Coordinate Reference System:** <http://www.opengis.net/def/crs/EPSG/0/3046>; <http://www.opengis.net/def/crs/EPSG/0/4936>;  
<http://www.opengis.net/def/crs/EPSG/0/4258>

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## TEMPORAL INFORMATION

*Temporal coverage and dates*

**Temporal Extent:** 2004-12-08 - 2009-05-15

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**Publication Date:** 2009-05-15

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**Creation Date:** 2004-12-08

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**Last Revision Date:** 2024-11-29

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## QUALITY AND CONFORMANCE

*Data quality and standards conformance*

**Lineage / Provenance:** 1. First order Gravity Network 1952/53 (SFRY), Potsdam, distance 200-300km, number of points 13.  
2. Second order Gravity Network 1952-1958 (SFRY), Potsdam, the distance between points 15-50km, number of points 1900  
3. Reference Gravity Network 1964-1967 (SFRY), Potsdam, the distance between points 10km, number of points 1520  
4. Reference Gravity Network 2004-2009, IGSN71 system, distance 50-70km, number of points 75.

The RMS error of the estimated gravity accelerations at the points of the reference gravimetric network obtained as a global quality measure of the least squares adjustment is approximately 10  $\mu$ Gal.

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**Spatial Resolution:** 10000

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**Specification:** ISO 19139

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**Degree of Conformance:** Conformant

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## ACCESS AND DISTRIBUTION

## Access constraints and distribution information

**Access Constraints:** otherRestrictions

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**Limitations on Public Access:** Not specified

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**Available Formats:** ASCII XYZ data format; ESRI Shapefile; KML

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**Publication URL:** <https://a3.geosrbija.rs/share/78aee5378cfc>

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**Service Endpoint:** <https://a3.geosrbija.rs/share/78aee5378cfc>

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## CONTACT INFORMATION

### Responsible parties and contact details

**Responsible Party - Name:** Republic Geodetic Authority

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**Responsible Party - Role:** Publisher

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**Responsible Party - Contact Name:** [geoportal@rgz.gov.rs](mailto:geoportal@rgz.gov.rs)

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**Responsible Party - Email:** [geoportal@rgz.gov.rs](mailto:geoportal@rgz.gov.rs)

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**Responsible Party - Website:** <https://www.rgz.gov.rs/>

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**Contact Email:** [office@rgz.gov.rs](mailto:office@rgz.gov.rs)

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**Metadata Contact - Name:** Republic Geodetic Authority

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**Metadata Contact - Role:** Metadata Contact

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**Metadata Contact - Contact Name:** Metadata Contact

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**Metadata Contact - Email:** [office@rgz.gov.rs](mailto:office@rgz.gov.rs)

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**Metadata Contact - Website:** Not specified

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## METADATA DETAILS

*Information about this metadata record*

**Metadata Language:** English

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**Metadata Date:** 2025-10-30

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**Unique Identifier:** 88868bc5-a5db-4f8c-adc9-928b9ccc0eae

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